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ABSTRACT

This is a review of literature (with abstracts) dealing with adolescent pregnancies. Most of the programs developed to meet the needs of the pregnant adolescent are relatively new. Therefore, the literature which has been published on adolescent pregnancy is heavily weighted with articles which demonstrate the size and kind of problem, not with evaluative research of these programs. The articles which originate from various helping professions have one of two foci: A total program in progress or a particular service or treatment model recently tried; or one or more cases and the services given to them. From this review of articles, it can be concluded that we must await evaluative studies of these programs recently funded and now in progress. (Author/WS)

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Pregnant Adolescents

A Review of Literature With Abstracts 1960 - 1970

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INTRODUCTION

During the last decade, scholars, human services professionals and the general public have shown increased interest in and concern about pregnant adolescents. One expression of this concern is the number of articles on this group published in scholarly and professional journals, in the press, and in mass circulation periodicals. These articles have stimulated and supported the attempts now being made in almost 200 cities and towns to do something about the problem of pregnancy in adolescence.

Most of the programs developed to meet the needs of the pregnant adolescent are relatively new. Thus, the published literature on adolescent pregnancy is heavily weighted with articles which demonstrate the size and kind of problem before the country, not with evaluative research of these programs.

Many articles in each helping profession are descriptive, having one of two foci: A total program in progress or a particular service or treatment model recently tried; or one or more cases and the services given to them. This last set of reports appears at first to be research which meets acceptable norms of scientific methodology. However, critical and analytic reading of these studies shows that most are methodologically weak, so much so that great care must be taken by the reader lest he draw conclusions from the report which are unsubstantiated by the data contained therein. One should not conclude from this that pregnant adolescents are not a social problem, or that programs for them are unnecessary or ineffective. Rather, one must await evaluative studies of these programs recently funded and now in progress.

METHODOLOGY

To prepare this review, an intensive search was done in the periodical literature from 1960-1970 in medicine, public health, psychiatry, nursing, psychology, social work, education and the social sciences. A computer print-out on "The Pregnant Adolescent" was requested from the National Library of Medicine and this was supplemented by a search of the Library's monthly Index Medicus. Other indices reviewed included Psychological Abstracts, Child Development Abstracts, Sociological Abstracts, Social Work Abstracts and the International Nursing Index. Each of these covers the literature in its field. In addition, sources were taken from Sharing, the publication of the Consortium on Early Childbearing and Childrearing, from reading lists used in several schools of medicine and public health, from a bibliography prepared by the National Education Association, and from references found in all articles read. Certain foreign and limited circulation periodicals are not included in this report. Selected relevant articles from the medical, educational, psychological, social science and helping professions journals were abstracted and these abstracts were then summarized in essays which are placed at the front of this report.

A note on the criteria used in selecting articles to be abstracted might be helpful. All articles found which were specifically concerned with pregnant adolescents were included. In addition, we have reviewed some of the literature on illegitimacy, even though it was not always limited to illegitimacy among adolescents. We recognize that the population of pregnant adolescents and the population of unwed mothers do not coincide, but we believe that it was important to include this material. A sizeable proportion of pregnant adolescents are unmarried, and moral and theoretical judgments made about the unmarried group frequently affect those who are married. This is particularly relevant in the provision of services.

Some articles were also abstracted which deal with problems in research on, or service to, pregnant women in general, but include some age-specific data. No deliberate effort was made to locate all material on teenage marriages which did not include pregnancy, nor material on the putative fathers of the babies of adolescents, although a few of these are presented.

The abstracts were categorized for the purpose of review. Those articles which seem to be defining the scope of the problem of adolescent pregnancy and developing notions of causality are considered in Section I (Review, p.3 ; Abstracts, p. 19) along with those devoted to policy suggestions. Descriptive articles of existing services to pregnant adolescents are presented separately in Section II (Review, p. 7 ; Abstracts, p. 41). Articles reporting research in the domains of health, psychology and psychiatry, and educational policies are reviewed in Section III (Review, p.9 ; Abstracts, p. 55), Section IV (Review, p.15 ; Abstracts, p.67) and Section V (Review, p.18 ; Abstracts, p.79). These research articles were separated so that findings could be compiled and methodology reviewed critically.

I. DEFINITIONS OF THE PROBLEM AND RECOMMENDATIONS FOR ACTION

Much of the literature from the past decade regarding services to pregnant teenagers is concerned with the scope, the causes, and the consequences of the phenomenon, as bases for policy and program recommendations for prevention and treatment.

Several studies have contributed to identification and description of the population group at risk to teenage pregnancy, and to calculation of the frequency of its occurrence. Zacharias, (1970), studied age at menarche in an effort to determine the average age and the range for an American Population. Stine, et al., (1964), calculated age and race-specific fertility rates and infant mortality and prematurity rates for mothers under 16 in the city of Baltimore. Yurdin, (1970), of the National Council on Illegitimacy reports that national illegitimacy rates for teenagers are increasing even though leveling off for other age groups. Dempsey, (1970), shows illegitimacy rates to be higher among adolescents who have already been pregnant than among those who have not, and recommends that preventive services concentrate on the first group.

Views on the causes of teenage pregnancy and illegitimacy seem to be moving in the direction of sociological explanations, rather than psychological or moral. Bernstein, (1960), reviews and challenges the single causation theory of illegitimacy commonly held by social workers and other professionals. This view that becoming an unwed mother is a purposeful act, symptomatic of emotional problems, has contributed to a limit on the range of treatment options for pregnant teenagers. Bernstein points out that the model may be applicable to only a few unwed mothers and that even these few could probably benefit if other dimensions of their situation were considered in the treatment approach. Evidence of the existence of emotional problems in an unwed, pregnant woman may be a consequence, rather than a cause of her situation.

Shlakman, (1966), discusses the traditional distinction made in defining the cause of illegitimacy for black women and white women. She points out that illegitimacy has been considered to be inevitable and acceptable for blacks, but symptomatic of emotional disturbance for whites. The implication of this for service has been that pregnant black teenagers have received little or no care, and whites have usually been confined in maternity homes, with psychiatric counselling.

Furstenberg, (1970), attempts to disprove the myth of normative acceptance of illegitimacy by blacks, with data showing that most of a study population of unmarried, pregnant black teenagers were unhappy about their pregnancies and would have liked to have used contraceptives.

Other authors attribute the increasing rate of teenage pregnancy to such factors as the ambiguity of societal sex norms (Wessel, 1968; Walters, 1965), and the special adjustment problems occurring in adolescence which sometimes result in sexual experimentation (Oberst, 1970). Several articles stress the lack of adequate sex

information on the part of pregnant teenagers and particularly the lack of information about birth control. Research data are presented showing that many pregnant adolescents desired contraceptives and would have prevented their pregnancies had they known how (Kinch, 1969; Wearing, 1967; Furstenberg, 1969; Furstenberg, 1970; Von der Ahe, 1969; Malo-Junera, 1970).

Whatever the causes, the effects of pregnancy on adolescents are more obvious and generally agreed upon. Medically, pregnant teenagers are at greater risk if not directly because of their age, at least because of poor nutritional habits, and reluctance or inability to obtain medical care until late in pregnancy (Stine, 1970; Wallace, 1965).

The educational progress of a student is nearly always interrupted when pregnancy occurs, and in many cases the interruption is permanent. Many school systems have policies that prohibit pregnant women from attending school, and some discourage their return after delivery. Even if they are permitted to return, a large percentage of those women who keep their babies must find someone to care for them during school hours.

The social and psychological consequences of pregnancy in adolescence are also described. Pregnant teenagers suffer social isolation from their peers and thus lose their normal reference group (Hobart, 1962). This disruption of social ties in itself can have damaging effects, and it is compounded by feelings of shame, fear and anxiety about the delivery of the baby, and uncertainty about the future (Webster, 1965).

One author lists even further reaching consequences of the pregnancy, suggesting that the combination of interrupted or unfinished schooling, plus the burden of motherhood at an early age, leads to other failures such as the inability to establish a stable family life or to become economically self-supporting (Waters, 1969).

Several societal factors contribute to the likelihood of negative outcomes for pregnancy in the teenage years. Primitive social attitudes which hold that a pregnant teenager deserves any misfortune that befalls her, and rigid, exclusionary school policies are among these. Largely because of these attitudes, there is a general lack of medical, educational, social, and psychological services for the pregnant teenage population. The service lag is especially great for those who are poor and black (Herzog, 1967; Garland, 1966; Bernstein, 1963). Traditional care for the pregnant teenager has been in the form of maternity homes for middle class whites who agreed to give up their babies for adoption and were willing to pay for seclusion while waiting for delivery. The limited capacity and facilities in these homes also has meant, of course, that not even all white, middle class women received adequate care.

Those articles devoted to suggesting ways of coping with the problem of teenage pregnancy cover both general social policies and recommendations for specific

action. Following the trend in the explanatory literature, there is increasing emphasis on the treatment of teenage pregnancy as a social, rather than an individual, problem.

Two articles deal with the legal and moral issues involved (Lewis and Lewis, 1971; Committee on Maternal and Child Care AMA, 1967). These include the rights of the young mother to make decisions regarding her child, her rights with respect to the putative father, and the responsibility of the state for both the mother and the child. A third article is concerned with supporting the right of a teenager to have a child in the face of pressure from her parents and others to have an abortion (Harrison, 1969).

A policy statement by the AMA recommends that teenage women who are at risk to pregnancy be given preventive care in terms of consultation and prescriptions for contraceptives (American Medical News, 1971). Several authors advocate increased and improved sex education for adolescents in the schools (Calderone, 1966; Doyle, 1967; Daniels, 1969; Von der Ahe, 1969).

The article by Shlakman, (1966), mentioned previously, recommends some steps to alleviate the inequalities in service between blacks and whites, including revision of the AFDC program, federal support of obstetrical care, and provision of comprehensive, family-centered health services. Shlakman, (1966), and Garland, (1966), also discuss policy to prevent teenage pregnancy, but in a much broader sense than the AMA and related articles. They call for an alleviation of the economic and social conditions which contribute to high rates of illegitimacy among certain groups.

Most suggestions for programs concentrate on comprehensive care, with continued education, medical care, and social and psychological services. There is an emphasis on the need of young pregnant women for supportive reference groups, and a consequent stress on specialized services for pregnant teenagers in groups. The importance of the school in coordinating services and directing women to them is noted, since schools have the greatest contact with adolescents of any agency (Kelly, 1963).

More specific treatment approaches and the role of various professions in caring for pregnant teenagers are also mentioned. In the area of social work, for example, two writers advocate using the client's relationship with her mother as a focus for treatment, and providing a surrogate mother in the female social worker (Bernstein, 1963; Friedman, 1966). Strean, (1968), takes issue with this approach and attempts to justify theoretically the use of both male and female workers. Signell, (1969), presents a model for mental health consultation with staff serving unwed mothers.

The nursing journals contain several discussions of the possible contribution by nurses to the problem of reaching pregnant teenagers and the special role nurses serve in comforting and reassuring the very young girl before and after delivery (Kocinski, 1965; Farill, 1968; Daniels, 1969).

In general, current policy recommendations and suggestions for specific treatment and prevention services are becoming more consistent with sociological explanations of the causes of teenage pregnancy. Prevention emphasis is on changing the social conditions which contribute to high rates of teenage pregnancy, and on realistic attempts to deal with contemporary sex norms by providing information and contraceptive services. Program suggestions frequently focus on the use of supportive reference groups for educational purposes, and for treatment of socio-emotional problems.

Ideally, recognition of sociological factors as contributory to adolescent pregnancy should lead to an acceptance of societal responsibility in preventing and treating the negative consequences of the phenomenon. The literature indicates a trend in this direction, at least on the part of those involved in the designing and directing of programs and services. A more general public acceptance of the responsibility is required in order to bring the necessary governmental and other public agency support to alleviate the problems of this particularly burdened group of women.

II. EXISTING SERVICES

Descriptions of services for pregnant adolescents in the literature reflect the current trend toward comprehensive care. This is evident in the number of reports each year of new programs providing educational, medical and social services, as well as in the efforts of smaller programs with limited facilities to combine health care instruction with group therapy or counseling with personal problems.

Twelve articles describing single programs have been abstracted.[1] Several others discuss comprehensive service generally, and briefly describe several programs. The typical comprehensive program provides continuing education for pregnant school-age women in a special school or after hours in a regular school, has a clinic attached or associated with it to which the women are sent for prenatal care, and provides the services of social workers and/or psychologists for individual and group counseling. Generally, a course is offered by a nurse or other health instructor on the physical aspects of maternity, with special lectures by nutritionists and other professionals.

A number of other articles deal with programs which provide only health instruction, therapeutic group sessions, or some combination of the two. Health classes, usually consisting of a series of lectures or discussions on pregnancy and childbirth, films, and frequently a visit to a delivery room, are described as being therapeutic in themselves. The women are described as having very limited or faulty information about the physical processes involved in pregnancy, and as being highly anxious about the birth itself. Providing accurate information in an uncomplicated and sympathetic manner has been observed to dispel many of the fears of young, pregnant women (Lau, 1971; Smith, 1970).

Being together in small peer groups also provides an opportunity for the women to discuss their personal problems with others who share them. This kind of discussion is frequently noted as a part of the health instruction classes, or as a separate, deliberately planned attempt to create a therapeutic group situation. It was observed in several articles that if relatively permanent small groups of peers could be maintained, the participants relaxed and were able to speak freely about their anxieties and their interpersonal relations with family, teachers, boy friends, husbands, and others (Barnard, 1971; Knight, 1965; Kotaska, 1968). These periods of discussing personal problems also lead frequently to the making of plans for the future, and are believed useful in helping the young, pregnant woman adjust to her situation.

A few specialized services are also reported in the literature. One of these is an adolescent clinic providing contraceptive services for sexually active, nulliparous adolescents, in which discussion groups are conducted by a social worker (Gordis, et al., 1968).

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[1] Research findings from program evaluations are discussed in the essay on medical and health research, Section III.

Several general trends appear in the literature describing services for pregnant teenagers. There seems to be a strong reliance on peer group interaction as a technique for disseminating information, relieving the anxieties of the women, airing their personal problems, and helping them to make realistic plans for the future. Underlying the use of this method are two assumptions--1) that the problems of pregnant teenagers are different from those of other pregnant women, married or unmarried, and 2) that a peer group is an ideal situation for both learning and therapy.

There also seems to be a heavy emphasis on education as the major means of solving the pregnant teenager's problems. This is seen in the effort to provide a continuing academic program which will encourage women to return to school after delivery, and in the expectation that improved health and sex education will serve as preventive measures against further pregnancies.

A general comment might be added on the services provided. They have obvious limitations which keep them from solving the problems of adolescent pregnancy on the whole. One is the limitation on the number of women served in relation to the total population of pregnant teenagers. There are simply not enough programs and those which do exist usually cannot admit all possible clients in the area which they serve. Another significant limitation is the length in time of the services provided. These extend at the most to a few weeks after delivery, in spite of the fact that those women who keep their babies continue to have serious problems. A genuinely effective effort to resolve the problems of an adolescent woman who has become pregnant would seem to require continued medical care, educational and vocational programs, economic assistance, child care, personal counselling, and a host of other back-up social services. In addition, prevention of further problems for the pregnant adolescent demands a realistic appraisal of the factors which contribute to her situation, and services designed around eliminating or alleviating those factors. Provision of sex information and contraceptive services are probably a step in the direction of prevention. These will be only of limited usefulness, however, if nothing is done to improve the life-situation of the young woman at risk, and to help her achieve a sense of personal worth and belief in her own future.

III. HEALTH RESEARCH RELATED TO PREGNANT ADOLESCENTS

A. Introduction

Ideally, professional practice in the medical and health fields is built upon empirically confirmed knowledge about diseases and disorders. Clinicians are concerned with etiology, pathogenesis, diagnosis and therapy. In addition non-clinicians, among them many public health workers, are concerned about the amount of disease and disorder experienced by defined population groups who live in specified geographic areas in more or less specified social environments during a specified period of time. Both groups of health workers use empirical research to establish this knowledge.

Frequently, however, there is no confirmed knowledge about a disease process and the most effective therapy. In such cases, professional practitioners rely on their judgment, on what has been called their "practice wisdom." Often, this "practice knowledge" functions for the professional as a belief system and as a cognitive system which defines reality. At times, however, these beliefs are used by the worker to avoid examining a practice. Practice wisdom often "works." To condemn it in the abstract is foolish and is surely not our intent. Such ideologies of disease and disorder, when held by large groups of medical and health practitioners, serve to define what is knowledge and, equally important, what topics should be studied or ignored, the priorities of these topics for study, and the appropriate conceptual and research approaches.

Of particular concern here is the "disease ideology" of adolescent pregnancy. When adolescent pregnancy is conceptualized and studied as a medical problem, several factors thought critical to non-physicians are usually excluded. These include psycho-social data like race, social class, familial relationships, peer relationships, and social living situation, and the relations among these. Often, data on many of these factors are available but are either not collected or not reported.

B. Findings on Adolescent Pregnancy

We could distinguish three analytic stages in the subject area; at-risk adolescents, pregnant adolescents, and teen-age mothers (or parents). This review includes only the second stage, pregnant adolescents.

1. Findings on Biologic Outcomes

Dr. John Grant, (1970), reviewed studies of the biologic outcomes of adolescent pregnancy. Among his conclusions were:

a. Those adolescents studied had " . . . a statistically significant, higher rate of prematurity (birth weight less than 2500 grams) than some

comparison group, chosen by whatever means."

b. "Most studies show increased rates of toxemia in adolescent mothers."

c. "Adolescent mothers are at risk to toxemia to a degree proportionate to the presence of the variable of nonwhite race and low socio-economic status."

d. Regarding the "assertions that adolescents are a high risk group for unfavorable biological pregnancy outcome... there is ... the important implication that race, socio-economic status, parity, and pre-pregnant obesity are more significant risk factors, either alone or in combination, than age itself."

Dr. Grant concluded that "all other unfavorable outcomes of pregnancy bear inconsistent correlations with low maternal age ...."

From our review, the following health findings were reported in specific studies:

a. adolescent mothers present no greater difficulties in pregnancy, labor, delivery or postpartum care than do older primigravidas. However, their babies tend to be delivered earlier, weigh less and have a poorer chance of survival (Hulka and Schaaf, 1964).

b. the following are increased hazards of adolescent pregnancy in this study group: Toxemia, prematurity, prolonged labor and fetopelvic disproportion; higher rates of Caesarean section. Risk to these hazards is highest for both mother and infant at 14 years of age (Hassan and Falls, 1964).

c. compared to an older group, teenagers had a higher incidence of pre-eclampsia, anemia, one-day fever, and labor in excess of 20 hours; and a lower incidence of Caesarean sections (Israel and Woutersz, 1963).

d. no increase in fetopelvic disproportion because of pelvic immaturity; higher incidence of prolonged labor (Mussio, 1962).

e. complication found most frequently was a weight gain; incidence of precipitate labor among the multiparous was 1 in 4 deliveries (Semmens and McGlamory, 1960).

f. no increase in prematurity due to the mother's age; pregnancy in the adolescent primigravida is relatively free from complication (Steam, 1963).

g. low Caesarean section rate; complications seen postpartum included third-degree extension of median episiotomies (Von Der Ahe, 1963).

h. higher incidence of toxemia, contracted pelvis, prematurity, immaturity and perinatal mortality in study population than in the literature (Battaglia, et al., 1963).

i. increased incidence of toxemia, pelvic contraction and prolonged labor in adolescent group than in older comparison group (Bochner, 1962).

j. when primigravidas 14 years and younger were compared to a cohort of older primigravidas from the same facility, it was found that the younger group had significantly more toxemia, uterine dysfunction and one-day fever. Correlations between the following complications were found: Anemia in the mother with fetal distress; uterine dysfunction with idiopathic hyperbilirubinemia, and asphyxia neonatorum and respiratory distress syndrome with fetal distress (Coates, 1970).

k. when chronological age was distinguished from physiologic age, and the latter was related to preeclampsia and low-birth weight, it was found that those mothers who conceived 24 months or less after menarche delivered a statistically significantly greater number of low-birth weight infants (Erkan, et al., 1971).

Based on our review of the literature we concur with Dr. Grant, (1970), that:

> Assertions that adolescents are a high risk group for unfavorable biological pregnancy outcome are rather loosely based on disparate data from multiple sources. There is, however, the important implication that race, socio-economic status, parity and pre-pregnant obesity are more significant risk factors, either alone or in combination, than age itself.

Since we distinguish between the outcome for the mother and the outcome for the infant, we would say that the adolescent mother may not be at relatively high risk to obstetrical complications, but that her baby may be at relatively high risk to disorders and death.

2. Findings on Nutrition

The National Academy of Sciences (NAS), (1970), recently published the results of working meetings of experts in maternal nutrition. One working group studied the "Relation of Nutrition to Pregnancy in Adolescence." * Since our literature review uncovered few articles on this subject, we borrow liberally from this publication in the following presentation on nutrition findings.

The NAS group discussed the topics of obstetric behavior of adolescent women and nutrition in adolescence. There are some studies on each of these topics. Very little space is devoted to the subject of the relation of nutrition to pregnancy in adolescence because they too found little in the literature. The NAS group noted that:

*Compare the original report with the NAS press release of July 28, 1970 "Report Cites Dangers of Adolescent Pregnancy."

> Although diet during pregnancy is an important consideration, the lifelong nutritional status of the adolescent girl when she enters pregnancy is a critical determinant of her reproductive performance.
>
> Perhaps for this reason and because in any population of pregnant women the number of very young girls is likely to be small, few complete studies of the nutritional status of adolescents during pregnancy have been made in the United States . (Our emphasis.)

They noted also that "... one can assume, since dietary habits are set ec ly in childhood, that the food intake of the pregnant adolescent will be little different during pregnancy." (Ibid.) The NAS group reported briefly on two studies.

McGanity et al., (1969), studied 861 pregnant adolescents in Texas. They found that the adolescents had "poor intakes" of iron, calcium and vitamin A, and low levels of plasma vitamin A, ascorbic acid and urinary riboflavin. From a study by Smith, et al., (1968), of 996 pregnant adolescents in Chicago, the NAS group concluded that:

> This study confirms the observations made by others that teenagers' diet in our country tend to be low in calcium, ascorbic acid, and iron, and that the tendency to form poor food habits is more pronounced among those coming from poorer homes.

3. Program Evaluation Findings

Although there are about 200 multiservice programs for pregnant adolescents in the United States, very few of these have been evaluated as to their "effectiveness," and few of these evaluative studies have been published.* It is expected that more studies will appear in the next several years.**

The first, and probably the best known, evaluative study was done by Marion Howard, (1968), on the Webster School in Washington, D.C. The study was focused by at least four research questions:

> a. "How effective was the project in securing the girls return to regular school and their continuance in school until graduation?
>
> b. Did its services result in a decrease in the proportion of girls who had what physicians call complications of pregnancy and delivery?

*In our recent survey of 128 programs, only 24 reported that some "research" of any kind had been done.

**For studies after 1970, see e.g. Rauh, Johnson and Burket, (1971), and Jekel, et. al., "An Analysis of Statistical Methods for Comparing Obstetrical Outcomes..." Mimeo, School Medicine, Yale University, 1971.

c. Were the rates of premature births and perinatal deaths reduced?

d. Were the girls who attended The Webster School less likely than others to become pregnant again, especially out of wedlock?"

These four questions included the indicators of "success." To find answers, populations compared were:

a. All Webster students.

b. Students enrolled during the second year of the School.

c. A group who did not attend Webster matched to those who attended during the second year.

d. For some variables additional findings are presented for other populations in Washington, D.C.

Among her findings were:

Education

- Webster "was highly effective in promoting school re-entry following childbirth;" they had a higher rate of return than non-Webster students.

- Many of those who returned to school dropped out before graduation; fewer Webster students dropped out.

- Many of those who dropped out after re-entry did so because of pregnancy (about a third of the Webster students). Other reasons given were marriage, work, lack of baby care.

- The older the student at first pregnancy, the more likely that she would continue in school.

Health

- Compared to an appropriate group in the District of Columbia, Webster students had fewer low birth weight infants and less infant mortality. The incidence of premature births was 18.8. This was "considerably lower than that for comparable populations in the District" but not a statistically significant difference when compared to the non-Webster control group.

Subsequent Pregnancies

- The Webster School had "limited effect on repetition of pregnancy." In part, this was a consequence of the School's emphasis on reducing premarital sexual relations as a means of preventing subsequent pregnancies rather than focusing on the use of contraceptive techniques.

Howard raises a crucial point in her report: Given that "the girls were in the program approximately 18 weeks (,) it might be questioned how much change could realistically be expected to result from that length of schooling and other services."

The Webster School evaluation was undertaken to answer four questions. These might profitably be asked by staff in every multi-service program for pregnant adolescents.

A second evaluative study recently published was done of the Edgar Allen Poe School, Baltimore, Md. (Stine and Kelley, 1970). The paper reports "the differences in morbidity and mortality in infants born to mothers attending the special school with infants born to a control group." Morbidity and mortality were dependent variables (predicted to); participation in the School (exposure) was the independent (or predictor) variable. Other factors were "controlled" e.g. race, age of mother, sex and birth order of infant; hospital of birth and census tract of mother's residence were dropped as controls.

Among the findings reported were the following:

- Fewer infants weighing less than 2501 gm at birth were delivered to mothers in the special school. This finding was a statistically significant difference between the groups.

- A smaller proportion of infants born to mothers in the School had gestation periods of less than 37 weeks. This too was statistically significant and could not be explained by the time that prenatal care was begun.

- Lower infant mortality among the infants of School mothers.

- Relative higher risk infants are those born to mothers who were 14 years old and who delivered within 18 months of menarche.

The authors do not isolate "causal" factors. They do suggest that postmenarchal age be included along with chronological age. Note also that they studied the date of initiation of prenatal care and not the number of prenatal visits.

IV. PSYCHOLOGICAL, PSYCHIATRIC AND SOCIAL WORK RESEARCH RELATED TO THE PREGNANT ADOLESCENT

A. Research Methodology

The disciplines and professions covered are psychiatry, psychology and social work. In each of these fields, the sample studied as either a single case or a group of cases. Data were collected by clinical interview, by standardized psychological test, by other research instruments (e.g. survey questionnaire), by observation, by the use of documents and records, or by a combination of these methods. The study might be short-term or long-term; it might include one measure, one piece of information or fact, or one test score on each young woman or many such measures using one or more means of data collection, and one or more kinds of data. Focus might be on behavior, on mental status, on intrapersonal dynamics, on inter-personal relations, or on combinations of any of these, among other possibilities.

B. Selected Findings on the Pregnant Adolescent

Among the findings reported in specific studies of specific young women are the following:

1. These beliefs are questioned: a) an unwed pregnancy initiates a downward life spiral; b) the population of unwed mothers is psychosocially homogeneous; c) the unmarried mother has more problems than the married mother. Question is raised about using "absence of repetition of pregnancy" as a criterion in program evaluation, (Aug and Bright, 1970).

2. Illegitimate pregnancy may be one outcome of the attempted resolution of the mother-daughter bond, (Barglow, et al, 1967).

3. In one study, the major concern of the young women was fear of parental rejection, (Claman, 1969).

4. Far more young pregnant women in one hospital attempted suicide than would be expected (Gabrielson, et al., 1970).

5. In one study, two groups of unwed adolescents were selected. One group received 18 months of group therapy, the other group was a control receiving no service. At the end of the year and a half, none of the treatment group were pregnant and nine of the twelve women in the control group were pregnant (Kaufman and Dantsch, 1967).

6. It is suggested that a minimum of 18 months of treatment is necessary for unwed mothers in psychotherapy because it takes this long to develop an effective treatment relationship (Khlentzos and Pagliaro, 1965).

7. Young women in one study changed their self-concept and their interpersonal behavior after delivery. The self-concept of young women was much closer to what they considered desirable and normal postpartum than during pregnancy (Kogan, et al., 1965).

8. One report suggests that unmarried pregnancy is "indicative of underlying emotional problems." Premarital pregnancy is seen as highly probable for a certain population of young women (Kravitz, et al., 1966).

9. It was found in one study that there was a positive relationship between "manifest anxiety" and total labor time and birth weights (McDonald and Parham, 1964).

10. One study found that "guilt" was not a causative factor in unmarried pregnancy (Naiman, 1966).

11. There were reported differences in symptoms during pregnancy among young women who planned and did not plan to become pregnant; those who said they planned the pregnancy had fewer symptoms (Patterson, et al., 1960).

12. A study in Canada found that it was not possible to characterize the young unmarried mothers as a type although clusters of personality types were found (Rosen, et al., 1961).

13. In a Rorschach-test study of the impact of pregnancy upon unmarried women compared to married women, it was found that the unmarried had higher scores of doubt and uncertainty and feelings of loneliness and helplessness (Wagner and Slemboski, 1968).

C. Psychological Test Inventory

The following list includes the standardized tests reported in the literature abstracted:

1. California Psychological Inventory
2. Draw-a-Person
3. Kent E-G-Y Scale D
4. Kogan Interpersonal Check List
5. La Forge and Suczek Interpersonal Check List
6. Minnesota Multiphasic Personality Inventory
7. Rorschach
8. Schaefer and Mannheimer Pregnancy Response Question
9. Taylor Manifest Anxiety Scale
10. Thematic Apperception Test
11. Wechsler Adult Intelligence Test

D. Concluding Comments

A variety of studies have been done on pregnant adolescents. Few are of adequate experimental design or have adequate samples. Therefore, the findings are not cumulative or generalizable to larger groups of pregnant adolescents. This must be kept in mind when considering the use of these research findings in program planning.

V. RESEARCH ON PREGNANT ADOLESCENTS AND THE PUBLIC SCHOOL

A. Introduction

The social movement to establish outpatient, comprehensive education, social and health services for pregnant adolescents developed in part because these students were "forced drop-outs" from public school in many places in the country. Research on pregnant adolescents and the public schools focuses on these exclusion policies, on educator and administrator attitudes about these policies, and their attitudes about pregnant students. Emphasis is also placed on the social consequences of these school policies. One such consequence is the initiation of court challenges on behalf of pregnant (and married) adolescents which seek to reverse the exclusionary policies, and seek to allow the adolescents to remain in "regular" public school or to be offered regular education in "special" schools.

B. Research Findings

1. Research Method

Most of these studies used a mailed questionnaire to learn attitudes of school personnel about the pregnant adolescent and facts about what school policies are for this population-group. One study appears to be a literature review (Matthews, 1961).

2. Select Findings

Among the reported findings are the following:

a. A 1966 national study of school districts of over 100,000 found that about 40% of these denied attendance to unmarried pregnant students (Atkyns, 1968).

b. Thirty-three states reimburse local school districts for the education of pregnant school girls. About a third of the districts in these states use these funds (Wurtz and Fugen, 1970).

c. A study in the state of Washington found that most of the high schools had a definite policy toward pregnant students. A majority of the policies were disciplinary (Willmarth and Olsen, 1964).

SECTION I

ABSTRACTS OF LITERATURE COVERING DEFINITIONS OF THE PROBLEM AND RECOMMENDATIONS FOR ACTION

American Medical News, "Editorial: Teen-age Pregnancy." July 12, 1971, p. 4.

This is a report of a statement on teen-age pregnancy adopted by the House of Delegates, American Medical Association, 1971. The statement was adopted to show physician concern for the medical and health problems of adolescents who are sexually active, pregnant, or parents, in all social strata. The AMA recommended that adolescents who are exposed to possible conception be given medical consultation and the most effective contraceptive advice and methods which will fulfill their needs, both physical and emotional. It further suggested that physicians should be free to prescribe or withhold contraceptive advice, using their medical judgement and acting in the best interest of the patients. Five guidelines are listed for the physician who decides to prescribe contraceptives to minors. The editorial suggests that the statement is consistent with responsible preventive medicine.

Auerbach, A. B. and M. Rabinow, "Parent Education Groups for Unmarried Mothers," Nurs. Outlook, 1966, 14(3), 38-40.

This is a brief report of a three day working conference on the role of preventive group educational services for high-risk patients in federally aided maternity and infant care projects. It was held in New York City in September, 1964 and was co-sponsored by the Children's Bureau, New York State Department of Health and the Child Study Association of America. Several key questions emerged from the discussions and these provided the foci of later discussions. For example, some questions reported are: What is the educational role of the nurse with this population? What specific information does this population need? Other questions focused on the differences between group discussion and group therapy, and the educational goals for this type of group. The strengths and weaknesses of parent education groups are reviewed.

Bernstein, R., "Are We Still Stereotyping the Unmarried Mother?" Social Work, 1960, 5(3), 22-28.

The author discusses the currently held view of social workers toward unmarried mothers that their behavior was purposeful and symptomatic of underlying emotional problems. It is noted that the widespread acceptance of this theory has resulted in a limited range of available treatment for women who may not in fact fit the theory. Other causal factors in unwed pregnancy are suggested, such as the conflict between relaxed sex norms and a proposed ideal of chastity. It is stressed that although an unmarried pregnant woman may be seen as having severe emotional problems, these may be a result of, rather than a cause of her pregnancy. Psychological tests given at this crisis period should be interpreted with caution, and behavior which appears abnormal, such as "denial of pregnancy," may be normal adaptations to the way the client is treated at this time. It is pointed out that even married women commonly undergo anxiety during some stages of pregnancy. The assumption that unmarried mothers are incapable of making appropriate plans for their babies frequently follows the assumption of personality pathology. This results in efforts by many professions to persuade the mother to give up her baby, even though she may have the desire and the ability to care for it herself. The author suggests that we attempt to take more dimensions into account when treating the unwed mother and abandon the single causation theory.

Bernstein, R. "Gaps in Services to Unmarried Mothers," Children, 1963, 10(2), 49-54.

The special needs of pregnant unwed women in the areas of medical care, social services, psychological treatment, and follow-up care are discussed. Prenatal medical care is of high priority because of the health risks involved when it is neglected, as it is by many unmarried pregnant women. Lack of awareness of the necessity of prenatal care, difficulty in getting to clinics because of needs for transportation, babysitters, etc., and unfavorable treatment by clinic staff are listed as the main reasons for this neglect. Suggestions are made for programs of health care in more convenient locations, with emphasis on health care education and with sympathetic personnel. Greater availability of financial help for medical services is also important. With regard to social services, it is pointed out that most voluntary or public agencies providing help with housing, legal services, and plans for the baby are available only to those women who place their babies for adoption, thus excluding racial minorities. Most hospitals, the one institution with which nearly all unmarried mothers come into contact, have no social service departments or are greatly understaffed. Psychological services also are usually only available to clients of voluntary agencies, mostly white women placing their babies for adoption. These services generally consist of counselling the woman to help her reach an understanding of the emotional problems which led to her pregnancy. The author questions whether this treatment is appropriate even for those few persons whom it reaches. Regarding follow-up treatment, sufficient research has not been done to determine if the difficulty in keeping mothers in contact with an agency indicates a termination of need or a gap in services. (15 references)

Bernstein, R., "The Maternal Role in the Treatment of Unmarried Mothers," Social Work, 1963, 8(1), 58-65.

The author suggests a social work treatment approach tried in a maternity home. It is based on the interpretation of the crises of unmarried parenthood at that time during which the client is susceptible to change in her sense of self and in her interpersonal relationships. The intervention is timed and takes form based on those problems meaningful to the client at a given point. This is not a new approach, but one reported now to remind us of its importance. It involves the social work principle of starting where the client is and moving at a pace consonant with the client's capacity and readiness. Three cases are presented which show how the maternal role can be exploited. Discussion of the timing and length of sessions suggests the value of occasional intense periods of treatment alternated with periods of more relaxed and less frequent sessions.

Bleiberg, N., et al., "Young Unmarried Mothers in Child Health Stations of Two New York City Districts," Amer. J. Public Health, 1962, 52(12), 2030-2040.

A questionnaire was administered by physicians to 300 primaparas under 22 years of age in the child health stations of the Central Harlem and East Harlem districts in 1960. 39% were unmarried and 28% had been married after conception. Comparisons were made on ethnic and age data among groups classified by marital status as married prior to conception, married prior to delivery, married after delivery, and unmarried. 80% of the unmarried were Negroes and 20% were Puerto Rican. There was no correlation between educational background and marital status. The previous home life of the mothers was rated as "normal" or "non-normal" by the physicians, and it was found that 44% of those from "normal" homes were married prior to conception as opposed to 23% from "non-normal" homes. In addition, adolescents from "normal" homes were more likely to get married before delivery. 85% of the married mothers obtained prenatal care during the first 2 trimesters as compared with 70% of the unmarried mothers. (12 references)

Bonam, A. F., "Psychoanalytic Implications in Treating Unmarried Mothers with Narcissistic Character Structures, Social Casework, 1963, 44(6), 323-329.

The discussion is based on 51 cases seen during the period 1959-63 at an agency in Philadelphia, Pennsylvania. Diagnosis totals are given for the population; no ages are noted. One thread common to all cases was a narcissistic character structure. The narcissistic position of mother and child, an internal conflict, is acted out symbolically and results in a problem in social living. Premarital pregnancy is not an accident, it is an escape from internal conflict. Characteristics of this type of character structure include an infantile level of ego development and deficiencies in reality testing. This character structure is a consequence of poor early relationships with parents, especially with the mother. This and other factors suggest a casework orientation focused on uncovering the patient's fantasies. The more of these which are uncovered, the less will be the need to act them out. The personality structure makes the initiation of a helping relationship difficult. Externalization is used as a psychological defense mechanism and this too makes treatment difficult. The worker should do everything possible to enable the client to talk and to relate positively. Suggestions on how to do this are offered. Other treatment content is provided. A discussion of the psychodynamic effect of the birth of the baby concludes the article.

Burchinal, L. G., "Trends and Prospects for Young Marriages in the United States," J. Marriage and Fam., 1965, 27(2), 243-254.

U. S. Census data is used to show a consistent increase in rates of young marriage between 1910-1960. This holds for males and females, white and non-white. Young marriage is defined as those in which at least one partner is not yet 18 years old. Non-white rates are higher in most categories; female rates are higher than male. The decade 1950-1960 shows little change in young marriage patterns; major changes were in earlier periods. An increase in the frequency of young marriages is expected because the age-specific population group at risk is growing; the rate of increase seems stable. Brief reviews are made of the factors affecting these rates and the factors that may favor and operate against young marriages. Eight characteristics of young marriages are presented. One third to one half of all marriages involve premarital pregnancy; there are more pre-marital pregnancies when both spouses are school age. Marriage outcomes are reviewed using objective data -- e.g. divorce rates, and subjective ratings. Both sets of data suggest the greater stresses found in young marriages. Divorce rates are between 2-4 times greater in young marriages than in marriages begun by persons in their twenties. Thirteen select characteristics of marriages are used to forecast marriage outcomes as poorest, intermediate, best. Implication of the data for service programs are made. VISTA, Peace Corps and other community development programs are seen as alternative roles to marriage for those in or just graduating from high school.

Calderone, M. S., "Sex and the Adolescent," Clin. Pediat., 1966, 5(3), 171-174.

This article, by the Executive Director of the Sex Information and Education Council of the United States, (SIECUS) calls for more realistic and inclusive education for adolescents on sexuality. The author points out that sex education is too often limited to facts about reproduction and contraception, with negative emphasis on preventing illegitimacy and venereal disease. A more positive approach would stress the place of sexuality in human life, and the responsible use of sex rather than control of it. SIECUS is a voluntary health organization focusing on "man's sexuality as a health entity," and offering assistance to educators, physicians and others in developing sex education curricula. (7 references)

Chaskel, R., "Changing Patterns of Service for Unmarried Parents," Social Casework, 1968, 49(1), 3-10.

The author is Director of the National Council on Illegitimacy. Her position contributes to the paper an overview of the problem and the services set up to meet these. Data are presented to show that the illegitimacy rate is increasing slowly but that the number of illegitimate births is increasing more quickly. This is because of a growth in the size of the population group at risk - women of child-bearing age. Topics covered include the public's reluctance and professional apathy about increasing the number and refining the content of services. There is some change because of the federal Maternal and Infant Care Program and because of Title I, Elementary and Secondary Education Act. The latter is being used to support special schools for pregnant teenagers. Other needs not being met include child care services and housing. Note is made of increasing attention paid to the unmarried father and to the family with an unmarried parent.

Chenoweth, A. D. "Editorial: The School Age Pregnant Girl," J. Sch. Health, 1971, 61(7), 347-348.

This editorial introduces an article on pregnant adolescents which appears in the journal. The situation of the pregnant adolescent is changing as education and services for her are increasingly more available. Changing too are social attitudes. For example, in some cities pregnant students are now permitted to attend regular school classes (Atlanta), many agencies no longer require parental consent before providing contraceptives, and abortion laws are becoming less restrictive. Much remains to be done to create more services which are effective and efficient. More knowledge too is needed. For example, little is known about the young fathers or about the offspring of adolescents. (4 references)

Clark, A. L. "Maturational Crisis and the Unwed Adolescent Mother," Nursing Science, 1964, 2, 113-124.

This article is a discussion of the problems of physical and emotional maturation for the adolescent, and the effects of pregnancy on the married and unmarried young woman. Adolescence is a period of marked increase in the rate of physical growth which requires adjustments in the self image of the adolescent. The bodily changes of pregnancy are especially difficult for the young women to accept, and usually cause her embarrassment. Studies are cited which indicate that the physical state of the adolescent may also be responsible for certain complications during her pregnancy, particularly preeclampsia which occurs in 20% of adolescent pregnancies. Emotionally, pregnancy may interfere with the adolescent's normal process of developing self-identity and becoming independent of parental ties, especially if she is unmarried. For the married adolescent, pregnancy can increase the difficulty of adjusting to a relationship with her husband. (18 references)

Clark, A . L. "The Crisis of Adolescent Unwed Motherhood," Amer. J. Nurs., 1967, 67(7), 1464-1469.

The crisis is really three crises, each resulting from stress. One is adolescence, the second is pregnancy and the last is the fact of not being married. These crises are the basis of patient needs which the nurse must try to meet. Using a tape of an interview, the patient's needs are teased out and listed for the reader. Some of these needs result from guilt feelings, and some from tensions arising from other intra-psychic and reality problems such as what to do about the infant. A last focus is on the nurse's role and her feelings, behavior and attitudes.

Cobliner, W. G., "Teen-age Out-of-Wedlock Pregnancy: A Phenomenon of Many Dimensions," Bull. N. Y. Acad. Med., 1970, 46(6), 438-47.

This paper offers a conceptual re-examination of teen-age out-of-wedlock pregnancy in an effort to sort out distinctions which could be the focus of prevention and service, e.g., the distinction between juvenile delinquency as psychopathology and as a socio-cultural social role. These differences are often blurred as one label, juvenile delinquency, which is used to cover many phenomena on different levels and in different domains. Socio-cultural change is related to emerging opportunities for sexual activities, and is thus related to exposure potential and relative risk for pregnancy. The population of pregnant teen-agers can be divided into the accidental cases, the intentional cases, and those cases resulting from ignorance. A table of factors governing heterosexual activity and its consequences is used to suggest places and types of possible intervention. A literature review is woven into the text. (31 references)

Committee on Maternal and Child Care, American Medical Association, "Guide for Collaboration of Physician, Social Worker, and Lawyer in Helping the Unmarried Mother and Her Child," JAMA, 1967, 199(11), 858-859.

This guide, approved by the AMA House of Delegates at the 1966 Clinical Convention, clarifies the responsibilities of three professionals who work with unmarried mothers. The physician is responsible for the physical and mental health of the patient. The social worker has the responsibility of helping the woman with the distinctive social and emotional problems connected with having a child out of wedlock. In essence, the social worker supports the physician's role and his relationship with the patient. The attorney is responsible for two areas of counsel: the legal consequences of keeping or relinquishing the child, and the patient's rights in relation to the putative father. These responsibilities are built upon the mother's right to decide for herself and her child except where such rights are "involuntarily terminated by court action." Further, these responsibilities take form in the individualized case. Thirteen questions are listed as examples of the kind of questions to be asked and answered in case individualization.

Cremidy, P., and H. Jacobziner. "A Study of Young Unmarried Mothers Who Kept Their Babies," Amer. J. Public Health, 1966, 56(8), 1242-1251.

A project was run in an East Harlem Child Health Station from 1960-1962 for 100 women under 21 who were pregnant with or had kept their first out-of-wedlock child which was under six months. 97% of the women were Negro or Puerto Rican, the average age was 17, and most were high school dropouts. The aim of the project was to offer a variety of casework techniques and services to unwed mothers. The mothers were contacted by letters and home visits by a caseworker. Those who accepted the offer received educational, employment and personality development counseling, tutoring, and other services. The authors believe that the response to the program indicates that a more flexible approach to casework for unwed mothers can be beneficial. (2 references)

Daniels, A. M., "Reaching Unwed Adolescent Mothers," Amer. J. Nurs., 1969, 69(2), 332-335.

The coordinator of nurses training programs of the Child Study Association of America discusses the problems which nurses encounter in dealing with young pregnant women in public health clinics and special schools. Workshop seminars for the nurses concerned with the cultural milieu of the young mothers has helped in many cases to bring increased understanding between nurses and patients. Nurses must also learn to deal with the adolescent behavior of many of the pregnant women, and devote special attention to increasing their knowledge about their own bodies, the process of pregnancy, and possible methods of birth control. Group discussion sessions have been found to be a particularly effective way of conveying information to teenage patients. (4 references)

Dempsey, J. J., "Illegitimacy in Early Adolescence," Amer. J. Obstet. Gynec., 1970, 106(2), 260-265.

A study was done in Baltimore, Maryland to test the hypothesis that the incidence of illegitimacy is higher among parous than among nulliparous females in early adolescence, even when controlling for race and socioeconomic status. The at-risk study population was all 15 year old females in Baltimore between 1959-1961. Illegitimacy was defined as all deliveries of live births among members of the at-risk population, since pregnancy is a legal requisite for marriage under 16 in Maryland. A methodological discussion introduces the study results. The total study population was 20,304 15 year olds, 344 of whom were parous and 19,960 of whom were nulliparous. Among the findings which supported the hypothesis are the following: the incidence of deliveries among the nulliparous group was 3.3%, among the parous was 27.6%, and was 3.7% for the total at-risk population. Data by race and socio-economic class are given. The study limitations are discussed. The author suggests that preventive effort be focused on the parous adolescent. (4 references)

Doyle, P. J., "Adolescent Pregnancy," GP, 1967, 35(6), 101-104.

The author, a physician, reviews briefly the hazards of 'normal' adolescence and then relates these to the hazards of early pregnancy. Among the former are growth in height and weight, deficient diet and inadequate rest and sleep. It is noted that there is little valid epidemiological data on the incidence of illegitimacy; a few such studies are reviewed. Pregnant adolescents are at relatively high risk to certain obst etrical problems. This seems to be a consequence of the lack of antepartum care and associated psychosocial factors. However, the mother "does not appear to fare too badly from the obstetric standpoint." On the other hand, some studies suggest a relatively high neonatal death rate for the infants of adolescents. More study of this is clearly needed. What is needed also is earlier and better sex education in the schools and in the home, the sensitizing of medical students and house officers to this subject, and funds for research. (references must be written for)

Faigel, H., "Unwed Pregnant Adolescents - A Synthesis of Current Viewpoints," Clin. Pediat., 1967, 6(5), 281-285.

Five areas are covered in this review article: the social problem, the medical findings, the need for improved prenatal care, the role of the schools, and the role of social services. The author reviews the findings of recent medical studies on this population. Taken together, these studies demonstrate that the teenage pregnant patient is at high risk to obstetric complications and that the baby too is at high risk to morbidity and mortality. He believes that these data are being accepted as norms for adolescent pregnancy and he objects to this. Instead, he argues, the excess morbidity and mortality are a measure of the quality of medical care which this population receives, and this care can obviously be improved. He feels the same way about the quality of prenatal care being given these patients. It must be improved and made more intensive. Specifically, each clinic visit should be made with the same physician. Sex education is seen as currently inadequate and emphasis is placed on the need for continuing education during pregnancy and the resumption of regular schooling post-delivery. Social services are seen as necessary in helping the young woman to understand and accept her pregnancy and in helping her plan for the baby, e.g., in deciding on whether to place the child or keep it. The putative father also requires many of these same services. Many physicians are unprepared to meet the needs of this patient group and too few social services are currently available. (38 references)

Farill, M. S., "Adolescent in Labor," Amer. J. Nurs., 1968, 68(9), 1952-1954.
This a report of a nurse's attendance during the difficult labor and delivery of a 13 year old primagravida. The author stresses the special need for reassurance and individual attention for young patients in labor, especially since fear and anxiety seem to prolong the labor period. (2 references)

Friedman, H. L., "The Mother-Daughter Relationship: Its Potential in Treatment of Young Unwed Mothers," Social Casework, 1966, 47(8), 502-506
The author discusses the population who enter maternity homes and the use of the mother-daughter relationship as a focus of treatment for this population. Since a woman enters the home in the fourth or fifth month of pregnancy, the worker has a difficult time sorting out whether her psycho-social status is a consequence of her pregnancy and/or whether the dynamics seen were present (and to what degree) prepregnancy. It is noted that the use of a maternity home is a choice which certain people make who want to keep their pregnancy status secret, among other reasons. Thus, this is a select part of the population of young unmarried mothers. The mother-daughter relationship in this population is discussed. A case is presented and reviewed. Comment is made about substitute maternal relationships for these young women. The worker's role is discussed throughout.

Furstenberg, F. Jr., et al., "Birth Control Knowledge Among Unmarried Pregnant Adolescents: A Preliminary Report," J. Marriage and Fam., 1969, 31(1), 34-42.
This is a report of a study designed to explore the sexual patterns of pregnant adolescents, their attitudes toward pregnancy, and their opinions and knowledge of birth control. These data are needed if attempts are to be made to lower the incidence of premarital pregnancy through the use of birth control. The study population was 169 self-selected pregnant adolescents who registered for prenatal care at the Family Obstetrical Clinic, Sinai Hospital, Baltimore during a 15 month period. The study sample was almost all black, 15-17 years (85%), about half from broken families, and predominately working or lower class. The findings reported include the following: Most of the young women began sexual relations 2 or 3 years after menarche. By age 15, 39% were still virgins. Over 80% of the women became pregnant the same year or the year after beginning intercourse. About 40% of the study population used some form of birth control, yet only 22% had used a female control method. Many knew about birth control methods but did not have access to these. Knowledge about methods and access to these are related to attitudes about birth control. These and other topics are discussed, and supporting data are presented.

Furstenburg, F. J., "Premarital Pregnancy Among Black Teenagers," Transaction, 1970, 7(7), 52-55.
This article challenges the view that illegitimacy is accepted and approved of among lower-class Blacks. In 1966 at Sinai Hospital in Baltimore, a birth control program was instituted to prevent second pregnancies among unmarried pregnant adolescents. From 1966 to 1968, all unmarried women under 18 were interviewed when entering Sinai for prenatal services, usually in the second trimester of pregnancy. The mothers of the patients were later interviewed in their homes. A total of 337 patients and 306 of their mothers were interviewed. 96% of these women were Negro. In the households in which the teenagers lives, 80% of the household heads were unemployed, 47% of the heads were female, the median number of children was five, one half of the mothers had had their first child before age 18, and illegitimate births had already occurred in one half of the families. It was found that 65% of the teenagers were unhappy about their pregnancy, and 69% of their mothers expressed negative attitudes. One in 7 of the daughters claimed to be happy

about the pregnancy but they were no more likely to be from the most economically and socially disadvantaged homes. The happiest were those who strongly approved of marriage and hoped to marry in the near future. 90% of the young women said they did not know enough about birth control, and two-thirds said they would use it if they could. 95% of the mothers wanted their daughters to use birth control.

Garber, L. O., "Court Tells District to Readmit Married Mother," Nations Sch., 1969, 80(2), 46.
This article reports a ruling by a Texas court in the case of "Alvin Independent School District in Cooper, 404 S.U. (2d) 76(Tex.)." A married adolescent who had voluntarily dropped out of school was denied re-entry after the birth of her child because of a previous school board ruling. The court decided that since the young woman would also be refused entry into adult education classes until the age of 21, she was unfairly being denied the education to which state law entitles all children between the ages of 6 and 21 residing in a district.

Garland, P., "Illegitimacy - A Special Minority-Group Problem in Urban Areas: New Social Welfare Perspectives," Child Wel., 1966, 45(2), 81-88.
The author discusses the problem of increasing illegitimacy, especially among blacks, as a social crisis. This crisis is heightened by the lack of services to this minority group, and by sociological rationalizations which suggest that illegitimacy is accepted and perhaps impossible to prevent among blacks. Black unwed mothers are thus in the double bind of receiving no social work services and being blamed for the consequences of this lack of service. A program is described in which public assistance recipients were licensed as foster home mothers to care for other dependent children. The success of this program is given as an example of ways in which the stereotyped notions of the irresponsibility of AFDC mothers can be broken. The author concludes by calling for comprehensive planning for prevention of illegitimacy through the elimination of its economic causes, and immediate rehabilitative work with unwed mothers. The need for accurate data on the nature and scope of the problem is also stressed.

Gray, H., "Marriage and Premarital Conception," J. Psychol., 1960, 50, 383-397.
The author describes a study of marriage certificates and birth records between June, 1956 and July, 1958 (26 months) in a county in California. During that period, 907 (40%) of all brides were under 21 years. 32% of these (294) had a first birth in the study period. Of the 294 who gave birth, 43% delivered in less than 8 lunar months after marriage (224 days) and 56% delivered in less than 9 lunar months (252) days). Data are presented for age, school grade and other factors. Comparisons are made with similar studies in other states. (51 references)

Gwen, A.D.G. "The Unmarried Mother," Nurs. Times, 1965, 61(44), 1485-1486.
The National Council for the Unmarried Mother and Her Child is discussed. Founded in 1918, it still functions as the coordinating agency for all voluntary organizations serving unwed mothers. The work of this organization is difficult, as there are far too few services in England and Wales for these women. In all of England and Wales there are only 150 mother and baby homes, 17 of which are in London. The average capacity of these homes is 12 women, and most of them operate on very low budgets.

Harrison, C. P., "Teenage Pregnancy - Is Abortion the Answer?" Ped. Clin. N. Amer., 1969, 16(2), 363-369.

The author, a Canadian physician, raises the question of abortion again not because of new scientific knowledge, but rather because the turmoil of ideas and social values make a simple answer to this complex question difficult. "Teenage pregnancy is the product of social pathology. . . The pregnant teenager is caught by the hypocrisy of a society which condones her promiscuity and condemns her pregnancy. To abort the teenager because of this hypocrisy is not only foolish, it is irrelevant as far as the future welfare of the girl is concerned." Further, the author feels that there is a thin line between abortion and infanticide in the case of the adolescent. The unstated question asked is whether the abortion decision is made because of the adolescent's alleged, or real, inability to care adequately for the infant. He believes, although no data are presented, that by and large the girl does not want an abortion. The pressures to have one are exercised by the boyfriend or parent. There appears to be no clear physiological or psychiatric reasons for advocating abortion for pregnant teenagers. (40 references)

Herzog, E., "Unmarried Mothers - the Service Gap Revisited." Children, 1967, 14(3), 105-110.

The rate of out-of-wedlock births, or the number per 1000 unmarried women of childbearing age, has remained relatively constant since 1957. The numbers of such births however are increasing, and services have never been adequate to meet them. The major variable associated with out-of-wedlock pregnancy is low socio-economic status, and this is the population group which is least adequately helped. The author feels that the best efforts have been the comprehensive services for pregnant teenagers. These have the advantage of reaching those who do not become known to hospitals or social agencies, and those who are most in need of continued education. (15 references)

Hobart, C. W., "The Pregnant High School Girl: An Analysis and a Proposal," Personnel and Guid. J., 1962, 40(9), 786-790.

This paper deals with the social situation of the pregnant high school girl and suggests ways in which the school system might improve it. The most significant sociological consequence of pregnancy for the high school student is assumed to be a disruption of her relations with meaningful reference groups. Pregnancy frequently means rejection by her family, peers, and teachers, a situation which is aggravated by the policy of expelling pregnant students from many high schools. Without the support of reference groups, the pregnant adolescent is more likely to lose interest in her appearance, health, and future. The author proposes a program that would enable pregnant students to continue their education, provide them with marriage, health, and baby care advice, and help them to form new reference groups. It is suggested that membership in a class or group situtation with other pregnant students would facilitate the development of supportive reference groups. (12 references)

Howard, M., "Pregnant School-Age Girls," J. Sch. Health, 1971, 61(7), 361-364.

This article, by the Director, Research Utilization and Information Sharing Project, Cyesis Programs Consortium, reviews the increased educational, medical and social risks of the pregnant adolescent, and the comprehensive service programs which attempt to lower and control risks, and offers suggestions on what school health personnel can do. Educational, medical and social risks are high for the pregnant school girl. They are relatively higher if the girl is young, poor and nonwhite. This increased relative high risk is a consequence of biological and maturational factors and of social factors. Among the social factors are those attitudes which are punitive and which support social neglect of this population. For example, many school systems still force pregnant adolescents (and in some cases the fathers) from school. Another example is the social value that

a pregnant student should marry the father. This results in a marriage which is itself at relatively high risk to discord. As one response to these young pregnant women, over 150 communities have begun comprehensive service programs. As out-patient services for girls who choose either to keep or surrender their infant, these programs focus on the relative risks noted. Beyond providing care for current problems, the services attempt secondary prevention to reduce future bio-psycho-social risks. It is suggested that school health personnel can play several important roles for the girl as patient or client, as an advocate within the school and as a linkage between the school and other human service agencies. Special attention is paid to the school nurse. (5 references)

Inselberg, R. M., "Marital Problems and Satisfaction in High School Marriages," Marriage and Family Living, 1962, 24(1), 74-77.

This study attempted to identify the problem areas in high school marriages as defined by both spouses, and to determine the degree of their marital satisfaction. Two groups were used, both randomly selected. One was experimental and the other control. The experimental group was 40 couples plus 18 wives whose husbands could not participate. To be included, one spouse had to be under 19 and in high school. The control group was 40 couples plus 11 wives between 21 and 26 years old. All were white, native born, residents of metropolitan Columbus, Ohio and married between 3 months and 3 years. Age and occupational data are given. Data were collected using questions, an incomplete sentence blank schedule and a marital satisfaction scale. A description of the instruments and procedures used is given. Findings are reported under the topics of marital problems and marital satisfaction. Economic status, in-laws, and place of residence were among the problems listed. The experimental group had lower satisfaction scores. Other findings are reported. The study was a doctoral dissertation in 1960.

Keeve, J. P., "Selected Social, Educational and Medical Characteristics of Primiparous 12-16 Year Old Girls (Newburgh, N.Y.), Pediatrics, 1965, 36(3), Part 1, 394-401.

This is a report of a study of 125 primiparous 12-16 year olds in Newburgh, N. Y. who were located by a search of the medical records of St. Luke's Hospital for the years 1959-63. The data showed no particular trend during the period with the yearly average at 25 pregnant adolescents out of an average age-sex specific school population of 1,874. A significant finding emerged from the comparison of 53 of the 125 and 53 randomly selected controls on the "Spare-Time Interest Profiles" of the Otis I.Q. test. Forty-three percent of the primiparous adolescents recorded no spare time activity compared to 27% in the control group. The findings of this study confirm the sociomedical and educational profiles which have been documented by others. Other data are presented. (23 references)

Kelly, J.L., "The School and Unmarried Mothers," Children, 1963, 10(2), 60-64.

This article discusses the social and educational responsibilities of school systems toward pregnant students. The role of the school in transmitting social norms is stressed, as well as the special need of the unwed mother to prepare herself vocationally. The school is also best able to assist the pregnant student in finding medical and social services, since it is the institution which has the most contact with her. Several cities which have met their responsibility by establishing special programs for pregnant girls are mentioned, and a Philadelphia program is described which provides day care and educational opportunities for young women who have kept their babies. The author also discusses possible means of prevention of adolescent pregnancy, including sex and morality education. (9 references)

Kelly, W.E., "Group Therapy of Unwed Mothers," Curr. Psychiat. Ther., 1967, 7, 157-161.

This article discusses the difficulties in providing unwed mothers with group therapy services. Only a small proportion of unwed mothers, those from the upper income levels, enter maternity homes where they might receive these services; no group psychotherapy is available for the larger number of low income unwed mothers. Those women who are in maternity homes are there usually for a maximum of 3 months, an inadequate length of time for successful group therapy. The heterogeneity of unwed mothers presents another problem. Diagnoses range from passivity, aggression, and severe character disorders to psychoses. The author cautions that 2 or more psychotics in a group can be disastrous for the therapeutic process. In spite of these difficulties several instances are cited in which group therapy has been successfully applied to unwed mothers. (10 references)

Kinch, R., et al., "Some Aspects of Pediatric Illegitimacy," Amer. J. Obstet. Gynec., 1969, 105(1), 20-31.

A descriptive study of 149 unmarried and 99 married mothers was done in London, Ontario, Canada. The women were all under 25 years. The unmarried group was a sample from the city and the married group was selected from those who had delivered in the Obstetrical Service, Victoria Hospital, London, Ontario. All were volunteers. A standardized interview was used for data collection. The chi square was used to test for statistical significance between groups. Data were collected on the social backgrounds of the women and their parents, their dating history, their exposure to sex education, their patterns of extramarital sexual intercourse, and their prenatal care. Among the reported findings was the fact that less than 60% of all the women felt that they had received too little information too late. Contraception was used by less than 10% of them. Most of the women said that they had intercourse as a way to hold their boyfriend (75%). Most (91%) reported that the pregnancy was "the result of error." Other data are presented. The authors think significant their finding that the youngest unmarried mother more often came from a broken home which was more likely to have happened when she was 10 years old. The authors conclude with a long discussion of the implications of their study for patient management. (13 references)

Kocinski, R., "The Adolescent Nursing Student and the Adolescent Unwed Mother: A Nurse Educator's View," Nursing Science, 1965, 3, 172-177.

The author discusses ways in which the contact between adolescent student nurses and adolescent unwed mothers can be beneficial and problematical to both. An age-mate may be a more acceptable model for the development of the pregnant teenager's self-identity. The adolescent patient may in fact rebel against older authority figures such as an older nurse. The student nurse can approach the young unwed mother on a personal level, rather than with a professional facade. Dealing with the unwed mother may arouse feelings of anxiety and insecurity in the student nurse who is herself in a stage of resolving her own identity problems. Proper guidance by her instructor and peer group can make the experience a valuable learning time. (7 references)

Lewis, D., and M. Lewis, "Ethical and Moral Considerations in the Mangement of the Unwed Pregnant Minor," Social Psychiatry, 1971, 6(1), 40-45.

This paper is based on the authors' experience in the Young Mothers Program, School of Medicine, Yale University. A case study of Patty, a 17 year old multi-parous, unmarried mother is presented. This is the referrant for a discussion of the individual minor herself, of her infant, of her parent(s) and of society. Noted but not covered are the rights of the unborn fetus and the putative father. In determining the legal rights and related ethical and moral issues of the individual minor herself, four factors are discussed in general and relative to the case of Patty. These are

age, intellectual and emotional maturity, emotional or psychological state, and the individual's developmental stage. Covered too is the meaning of the legal concept "informed consent." The rights of the infant are viewed from the perspective of the "best interests of the child," the principle of "do no harm," and the "basic needs of infants and children." The unwed minor's parents also have rights relative to their minor daughter and her baby. Questions are raised about the competence of the parents ("normal" and not) to exercise these rights. The rights of society as expressed in the actions of its agents, such as judges or legislators, are reviewed. Throughout, reference is made to the abstract issues, the particular case presented, alternative responses and the relevance of all of this for the practitioner. (12 references)

Lowrie, P.H., "Early Marriage: Premarital Pregnancy and Associated Factors," J. Marriage and Fam., 1965, 27(1), 48-56.

This study used Christensen's method of comparing marriage and birth records to learn about premarital pregnancy from 1957-1962, in Woods County, Ohio. 1,850 first marriages of the bride were recorded. Divorce records in Woods and neighboring counties were reviewed as one measure of marriage failure. In the sample, pregnancy occurred more frequently among younger brides; about 71% of all pregnant brides were under 18; 95% were under 21. Findings were similar for young grooms; they were most likely to be involved in premarital pregnancy or pregnancy early in marriage. A questionnaire was sent to all 1,850 brides, and nearly half responded. Data were sought on dating patterns, education, religion, occupation, etc. Findings included an inverse relationship between level of education and rate of premarital pregnancy. Pregnancy was associated with short engagements. Other factors associated with premarital pregnancy are noted. This study is compared to others. There is also a discussion of the strengths and weaknesses of the methodology.

Malo-Junera, D., "What Pregnant Teenagers Know About Sex," Nurs. Outlook, 1970, 18(11), 32-35.

A survey of 100 pregnant teenagers at the Maternal and Infant Care Project in Newark, N.J. indicated that the adolescents had received inadequate sex education and contraceptive information. The author also discusses the high medical risk of pregnant adolescents stemming from susceptibility to disease and improper nutrition.

McMurray, G. L., "Continuing Education for Teenage Parents," Nurs. Outlook, 1969, 17(12), 66-69.

The author reviews the kinds of services previously offered to pregnant teenagers, and the inadequacies of these. The current trend toward comprehensive care is discussed with particular emphasis placed on the education aspects. The pregnant teenager not only has a right to continued education, but a special need for it if she intends to support herself and her child. The article also calls for infant care facilities and prevention in the form of sex education and birth control information. Community programs in Chicago, Washington, D.C., and New York City are outlined. (6 references)

Morgenthau, J. E., "Teen-Age Mothers," J. Sch. Health, 1967, 37(6), 353-358.

A survey is reported of the problems faced by teen-age mothers, their babies and their husbands or man-friends. The data presented comes in part from Bernstein & Sauber's New York City study of antepartum care. Reference is made to school laws which prohibit the young mother from attending school and/or participating as a normal student. These discussions are then related to the services and practices at New York Hospital (N.Y.C.) where the author is the Chief of Adolescent Medicine. At that hospital, the adolescent is assigned a physician who will work with her until delivery. An obstetrical consultant also sees each patient as does a social worker who helps her consider the alternatives available to her. (20 references)

Moss, J. J., "Teen-Age Marriage: Cross-National Trends and Sociological Factors in the Decision of When to Marry," J. Marriage and Fam., 1965, 27(2), 230-242

Reported data from Finland, Norway, Sweden, Yugoslavia and the U.S. are given a secondary analysis to compare age at marriage, and to categorize the suggested explanatory factors of teen-age marriage according to the theoretical frameworks from which they apparently proceed. Teen-age marriage refers to either or both parties being under 20 years of age. Cross-national data shows that the average age at marriage is declining with an increase in teen-age marriages. Intra-national data are not adequate for analysis of sub-cultural and regional patterns and for other sociologic factors like occupation and social class. Cross-nationally, marriage rates are higher for women. Rates for teen-age marriages which have one partner as a non-teenager are higher for women although, increasingly, both are teenagers. The papers analyzed for the article used four conceptual frameworks which differ from each other in their emphasis on social system, cultural system or personality system explanations. (bibliography)

Moss, J. J. & R. Gingles, "Teen-Age Marriages - The Teacher's Challenge!" Marriage and Fam. Living, 1961, 23(2), 187-190

This is a review of an earlier work by the authors on teen-age marriages. The article is given form by several questions the answers to which are taken from the earlier study: How can a teacher tell which of her students will marry before graduation? What do female students who marry in high school expect from marriage? How much "independence" are young couples able to achieve? Will young marrieds be happy ten years after the wedding? Responses to these questions suggest work areas for family-life teachers.

Muirhead, D. "The Unmarried Mother," Nurs. Times, 1965, 61(23), 773-775.

The author discusses the rate of illegitimacy in England and Wales (6.60% of all live births in 1962) and attempts to describe the population of unwed mothers, their problems, and the services available to them. It is maintained that unwed mothers are found in all occupational groups, and all socio-economic classes. Special needs of the unwed mother include medical care and financial support, housing, emotional support and counselling with personal problems. An example of an institution which tries to meet these needs is St. Christophers, a Mother and Baby Home where school-age mothers can continue education and remain after delivery with their children. Education authorities in some areas provide teachers in homes such as this. Many of these agencies are run by the Salvation Army.

Oberst, B.B., "Adolescents and Some of Their Social Problems, Including Parenthood," Part I & II, 1970, Nebraska Med. J., 55(9 & 10), 534-537 and 614-617.

The physician author discusses in broad outline some of the social (i.e., interpersonal and behavioral) problems of adolescents. One of these problem areas is adolescent social-sexual relationships. The adolescent must learn to differenti ate between and to understand "sensual love, physical love, and tender love." Often, adolescents confuse their sex feelings with love feelings. Some figures on illegitimate pregnancies in the adolescent population are noted. These are related to figures on teenage marriages. 40% of all brides and 20% of all grooms are teenagers; 50% of all female high school students are pregnant at the time of their marriage, and 70% of all women are married by their 20th birthday. There are many causes and consequences of these illegitimate pregnancies and/or early marriages. Some of these, such as the current "fun morality," early dating patterns, and alcohol, are noted. (9 references)

Polk, L., "UNWED Mother or Unwed MOTHER," Nurs. Outlook, 1964, 12(2), 38-39.

This brief article suggests the positive consequences for service which can result from an emphasis on the mother as mother regardless of her marital status. A focus on the word "unwed" leads too often to discussions of the moral and social aspects of her status. Health professionals should focus on the medical and health aspects of her role as mother. Caution is suggested for those who view the population group of unwed mothers as homogeneous; there are several differences among these women. Another focus is the designation of illegitimate birth. This label is the consequence often of a clerk's choice to record the birth this way; usually, it is not the choice of the mother. A clear, precise definition of illegitimacy is needed. Such a definition would contribute to the social and medical evaluation of a maternity patient.

Reed, E.F., "Unmarried Mothers Who Kept Their Babies," Children, 1965, 12(3), 118-119.

This is a report of a study done in Cincinnati, Ohio by Social Welfare Research, Inc., YWCA of Cincinnati. 118 mothers who had kept their babies were selected for study. Their names were obtained from the records of local agencies. Two-thirds of the group were white, 90% had one child, and more than half had been in maternity homes. Other facts given include the school year completed, age range (15.5-45.5 years), work status, occupation, living conditions, IQ scores, and current marital status. It was found that many of these mothers did not know that they could place their child for adoption. This idea had not occurred to many of the women, and other women were not told that this was possible. Many women did not feel any stigma about having an illegitimate child; this was true particularly among those of lower socio-economic status. The decision to keep the baby seemed to be the result of the mother's emotional feeling towards it. Considerations of financial support and other material factors played a small part. Over 100 (of the 118) mothers said that they would keep the child if they had the decision to make again. Parental influence and counseling by clergy were mentioned as sources of support in deciding to keep the baby.

Sauber, J., "The Role of the Unmarried Father," Welfare in Review, 1966, 4(9), 15-18.

This paper is taken from data obtained in a study of unmarried mothers who kept their firstborn. The study was done in New York City by the Community Council of Greater New York. The women interviewed were chosen from 12 hospitals in New York City, and were interviewed in the hospital and again at the baby's fifth, twelfth and eighteenth-month birthday. The total number of women at the start of the research was 321. 82% of these (262) were kept in the follow-up study. The study population is not fully representative of the unwed mother population in New

York City for it is younger and there are fewer whites. Data on the fathers were obtained only from the mothers. Findings on the putative father are presented and discussed under four headings; his age, mother's association with the father prebirth, postbirth, and the father as a source of support. The fathers, on the average, were somewhat older than the mothers. Of the mothers under 17, 66% became pregnant by a man under 20. 20% of the under 17 mothers became pregnant by a man over 30 years old. Since data are not presented by age, it is hard to be specific about teenagers. It seems, however, that prebirth mother-father relationships were established through friends, and relatives most often, with school as the next most frequent meeting place. Postbirth relationships between mother and putative father seems to be related to the father's age and to the length of the prebirth relationship. For men under 20, 14% had a postbirth relationship with the mother. The longer the prebirth relationship, the greater the chance of a post birth relationship. Mothers under 17 received help from the father less often than did the women over 17. It is clear that the father is not a phantom to these women; he is a personal associate who frequently lives with the mother and contributes to the family's living expenses.

Shlakman, V., "Unmarried Parenthood: An Approach to Social Policy," Social Casework, 1966, 47(8), 494-501.

The author reviews some of the previously held and current misconceptions about the rates, causes and consequences of illegitimacy. She cautions that many of the social and economic variables generally associated with the problem are based on limited data. The dichotomy in attitudes and policies toward middle and lower class white unwed mothers as opposed to blacks is highlighted, as is the unequal opportunity for preventing illegitimacy. The author notes especially the economic problems of the nonwhite unwed mother, and suggests policies to alleviate these. The policy recommendations include revision of the AFDC program, provision of comprehensive, family-centered health services, social services independent of relief agencies, federal support for maternity medical care, and more training for employment. (25 references)

Signell, K., "Mental Health Consultation in the Field of Illegitimacy," Social Work, 1969, 14(2), 67-74.

This is a discussion of the mental health professional who is a consultant to school administrators public health nurses and other professionals. Often, professionals have ambivalence towards illegitimacy which results from the conflicts between their personal and professional views. Feeding the conflict are stereotypes toward blacks and teenagers. Some forms of this prejudice are noted, e.g., scapegoating and "reverse prejudice." Professionals often have sophisticated variations of these prejudices, and the mental health professional frequently shares these views. This is one focus of consultation. The consultant must help demonstrate that unwed motherhood is a community mental health problem. This can be done by demonstrating that this problem meets the test of being a problem. Criteria of the test include notions of causality, severity and intervention potential. The consultant must work with professionals beginning where they see their role and then help them to develop broader inter-professional roles focused on prevention and intervention at other stages in the life of the young woman.

Signell, K., "The Crisis of Unwed Motherhood: A Consultation Approach," Comm. Mental Health Jour., 1969, 5(4), 304-313.

This paper suggests a model for consultation with staff serving unwed mothers. It is based on the author's experience in the San Mateo, California comprehensive programs for pregnant adolescents. The model presented focuses on the crisis of unwed motherhood for the woman. The crisis

is shown to be many subcrises including confrontation of the pregnancy, exclusion from school, physical changes, social isolation and interpersonal conflict, and delivery and caring for the infant. Each of these is discussed and an example is given. Consultation in mental health can be given to workers (care givers) to help them work with each of these subcrises. This consultation can take the form called "consultee-centered case consultation" or "client-centered case consultation." Also discussed are administrative consultation and consultation to researchers. (8 references)

Stine, O. C., et al., "School Leaving Due to Pregnancy in an Urban Adolescent Population," Amer. J. Public Health, 1964, 54(1), 1-6.

A study was conducted to determine the frequency of births to school-age adolescents, and the duration and effects of their prenatal care. Birth certificates for all infants born to residents of Baltimore 16 years or under were examined for 1957, 1960, and 1961. The data calculated included the percentages of out-of-wedlock births, and of primiparous women, age and race-specific fertility rates, infant mortality rates according to age and race, percentage of births of low birth weight by age group, time of initiation of prenatal care by age group, and fertility rates of the study group by census tract. Findings showed more than 800 pregnancies per year for school-age adolescents in a city of 900,000 population, and high frequency of premature births and infant mortality to mothers 16 years and under. Adolescents were found to obtain prenatal care later than older women, and the neonatal death rate when the mother received no prenatal care was found to be three times as great as when she received it. A concentration of high fertility rates for adolescents was found in a few census tracts of the city, those which were crowded and low-income areas. (2 references)

Strean, H., "Reconsiderations in Casework Treatment of the Unmarried Mother," Social Work, 1968, 13(4), 91-100.

A review was done of the casework literature on working with unmarried mothers. An emphasis was found on the relationship between the client and her mother. The treatment suggested was on-going casework with a female worker. A more recent emphasis views unwed motherhood as a social problem. A reading of case records from a recent experiment in select New York and New Jersey agencies and discussion with the workers on some of those cases suggest a different treatment approach and staffing pattern. This is the use of both male and female workers. A theoretical base is provided for this and two cases are presented to demonstrate the approach in action.

Teele, E., et al., "Factors Related to Social Work Services for Mothers of Babies Born Out of Wedlock," Amer. J. Public Health, 1967, 57(8), 1300-1307.

This is a report of a study of the contacts unmarried mothers had with social agencies in Boston during 1962. Data from two sources were used: 1) a report by United Community Services of Metropolitan Boston (UCS) of service utilization by unmarried mothers, January to September 1962; 2) a birth certificate study for the same period. This was done by the Department of Maternal and Child Health, Harvard University School of Public Health. 1,335 women were included in the study. The procedure used in selecting them is reported. The types of social agencies included in the UCS study were hospital social service, child care agencies, maternity homes, family service agencies and public welfare. 44.7% of the 1,335 women were reported as receiving no services from their agencies. Of those known to social agencies, about 66% had contact with one agency - hospital social service, or child care or maternity home. For mothers under 20 years, about 60% (325 women) were known to some agency. For this young group, 30.8% were

known only to hospital social service and 65.5% to a child care agency, a maternity home or both. There were very clear differences in service utilization by race when particular kinds of agencies were examined. For the whole sample, 14.5% of the white women and 74.2% of the Black women had contact only with a hospital social service; and 80.7% of the white and 10.9% of the Black women had contact with a day care facility, a maternity home or both. Other data are presented on residence and prior births. (8 references)

Townsend, J., "The Unmarried Pregnant Adolescent's Use of Educational Literature," Nurs. Outlook, 1967, 15(8), 48-51.

A study was done by a nursing student on public health nurses (PHN), nursing students and two unwed, pregnant teenagers. Responses are reported for 34 PHNs and for 6 students. The respondents listed adolescent needs which were partially or fully unmet by available literature: anatomy and physiology, prenatal care, post-delivery care or "baby information." The author reviewed three booklets mentioned most frequently to see if and how the three sets of needs were covered. The pamphlets were: "How Does Your Baby Grow," "When Your Baby Is On the Way," "Expectant Parents." Each was found to focus on a completed (wife-husband) family, and thus to be somewhat inappropriate for the unmarried adolescent. Many nurses did not use these booklets because of the content and/or because they preferred to do personal counselling. A plea is made for more appropriate literature with more realistic content. (18 references)

Tuttle, E., "Serving the Unmarried Mother Who Keeps Her Child," Social Casework, 1962, 43(8), 415-422.

This is a report of a study of the Cuyahoga County, Ohio ADC public welfare caseload in 1960, and the consequences of the findings for social work service. The study was a case count of two population groups within the ADC category: those single, widowed or divorced women who were receiving ADC for one or more illegitimate children, and those unmarried mothers who were themselves minors in families receiving an ADC grant. The findings are thought to be similar to those of other northern industrial cities in that the unwed mother caseloads in these cities have similar socio-economic status and racial and age compositions. The difficulties of psycho-social diagnosis with this population are noted and the need for individualized diagnosis and treatment planning is stressed. Socio-cultural differences between worker and client make this a difficult process. The relation between social factors and personality varies in each case and thus supports the need to individualize each case. Case presentations and discussions are given and these suggest roles for the social worker in a public welfare agency working with unmarried mothers.

Vincent, C. E., "Unmarried Fathers and the Mores: "Sexual Exploiter" as an Ex Post Facto Label," Am. Sociol. R., 1960, 25(1), 40-46.

The initial population for this study consisted of the 736 unwed mothers treated in 1954 in the Salvation Army Maternity Home, the county hospital, and physicians' private practice in Alameda County, California. From this population a sample was constructed of 201 white unmarried fathers who were the sexual mates of all the unwed mothers in the population who were never married, and were white, primiparous, and not impregnated by non-whites, relatives, or rape. The differences in educational level of unmarried father-mother pairs approximated husband-wife differences. Fifty-six per cent of the unmarried fathers were within three years of age of the unmarried mother, which also approximates husband-wife age differences. These findings are interpreted as indicating that

the labeling of unwed fathers as sexual exploiters has little basis in reality. There is discussion of the reciprocal exploitation of premarital sexual unions, by which girls use sex to bargain for dates and husbands of superior social status, and men use dating and the promise of marriage to obtain sexual rights. It is suggested that the labeling of the unmarried father as sexual exploiter is ex post facto since it is not applied if the sexual union does not result in pregnancy. The label sanctions males for failing to protect pregnant females and modifies the blame placed on unwed mothers.

Von Der Ahe, C., "The Unwed Teenage Mother," Amer. J. Obstet. Gynec., 1969, 104(2), 279-287.

This is a report of a study of 150 unwed teenagers living in four homes for unwed mothers in California - Saint Anne's, Booth Memorial Hospital, The Big Sister League, and Florence Crittenton. A pre-tested questionnaire was given a proctored class-room situation. The research sought some of the causes of un-wed pregnancy. The findings reported include exposure to sex education, dating patterns, time of initial coitus and contraception usage. Sex education in the schools is ineffective, parents do not really educate and the adolescent looks to her friends for information. The result of low exposure to accurate information is seen in the answers to sex knowledge questions. A computer program was used to test the relation between the age (in years) between the first date and the age (in years) of initial intercourse. A definite relation exists. It was found that initial coitus most often took place in the young man's home (42%), in the young woman's home (16%), or in a car (15%). About half of the young women had only one partner. Most were dating the young man before initial coitus and most often for 1-6 months. Eighty-seven per cent of the young women (131) did not use contraception. The 13% who did use contraception used condoms (7) and the rhythm method (7) most often. Other data are presented. The author suggests a reevaluation of the "broken home" syndrome as etiologic in adolescent unwed pregnancy. A discussion of the paper by others is presented. (3 references)

Wallace, H. M., "Teen-age Pregnancy," Amer. J. Obstet. Gynec., 1965, 92(8), 1125-1131.

Teen-age expectant parents and teen-age parents are a high risk group from a health, social, psychological, educational and vocational point of view. Yet community services do not generally give priority to these teenagers. Data are offered to show why these population groups are high risk. Demographic data show that there was a 25% increase in the number of youths 15-19 in our national population between 1950 and 1960 (13.2 million). Teenage marriages are on the increase, and teenage divorce rates are the highest for any age group. Teenage marriages are the most fertile, and the resulting pregnancies have clear consequences for the parents' educational and vocational opportunities and their life-chances. Data are given in support of these findings. Clinical data show that teenage pregnant girls are a high-risk obstetric population and thus require a high priority in services. The nutritional status of the teenage parent is a focus of concern because of the relation between the mother's nutritional status and the health of the baby and because of the natural, rapid growth of the adolescent who has increased nutritional needs. Venereal disease among teenagers is a problem as is out-of-wedlock pregnancy. Both problems are supported with facts and are discussed. (9 references)

Walters, P. A., Jr., "Promiscuity in Adolescence," Amer. J. Orthopsychiat., 1965, 35(4), 670-675.

The author is a psychiatrist with the Harvard University Health Services and his observations and study emphasis are on college women of upper-middle or upper-class origin. Focus is on the circumstances in which premarital sex is promiscuous or normative experimentation. Discussion is on the behavioral and intra-psychic levels within a framework of psychic growth and development. Key terms are sexual identification, maturation, and impulse control. Comment is made on the limited role now of chastity as a goal or virtue and its apparent replacement by fidelity as a value and as a goal. (6 references)

Waters, J. L. "Pregnancy in Young Adolescents: A Syndrome of Failure," Southern Med. J., 1969, 62(6), 655-658.

This article reports on a population of patients, aged 11-16, served by Grady Memorial Hospital in Atlanta, Georgia. The patients were primarily urban, indigent, unwed, and Negro. A syndrome of failure was identified by the staff in the young pregnant adolescents. It consisted of: 1) failure to fulfill the functions of adolescence; 2) failure to remain in school; 3) failure to limit family size; 4) failure to establish stable families; 5) failure to be self-supporting; 6) failure to have healthy infants. The Atlanta Adolescent Pregnancy Program is briefly described. Established in 1968, it serves 250 young pregnant adolescents with coordinated educational, social and medical programs, including in-depth group work. (16 references)

Wearing, M., et al., "A Medical and Sociologic Study of the Unwed Mother: Background and Medical Care," Obstet. Gynec., 1967, 29(6), 792-796.

A study of 150 single, white primigravidas was begun in London, Ontario, in 1963. It is unclear how the women were selected for study. One hundred and ten of the 150 were less than 20 years old. A pretested questionnaire was used to collect data on the family, educational and religious backgrounds of the sample, the sexual experience and sex education of the women, their pre-hospital medical care, and information about the putative father. It was found that 37% of the women were attending school when they became pregnant, and that 55% attended church regularly. The younger the age of the unwed mother, the younger she was when she had her first date. Fifty-six per cent of the women thought that they received adequate sex-education, 44% thought that it was inadequate. A key finding was that 89% of the sample considered their out-of-wedlock pregnancy an "error;" only 4% planned the pregnancy. Sixty-seven percent did not use contraception. About half saw a doctor within the first trimester of pregnancy and for about half, the family physician was the first doctor seen. About 36% considered having an abortion, though only 17% actually tried to have an abortion. These data are presented as percentages of the total; there are no age breakdowns on most factors. (3 references)

Webster, A., et al., "Teen-Age Pregnancy," J. Amer. Med. Wom. Ass., 1965, 20(3), 225-232.

A panel discussion was held in Chicago, February 12, 1964. Dr. Webster presented data from Chicago's Cook County Hospital for December, 1963. In that month 5.7% (82) deliveries were to mothers 16 years and younger. When percentages are used instead of raw numbers, there were no more pregnant teenagers delivering in 1963 than there were in 1953, 1958 or 1961. Data on the 82 deliveries are given. Sister Bonita reviewed two Chicago studies on services to unmarried

mothers; one done in 1952, one in 1962. In the 1952 study, 18.8% of these mothers were known to voluntary social agencies compared to 10% in the 1962 study. The psycho-social stresses of out-of-wedlock pregnancies are reviewed and related to the biologic and psychologic growth processes of adolescence. Mrs. Wright discussed the Community Services Project for Unwed Pregnant Adolescents which is under the auspice of the Mental Health Division, Chicago Board of Health, funded under an N.I.M.H. grant. The purposes of the program are continued education and focused, professional service. Based on a sample of 30, it seems that the unwed mothers contrary to what many believe, do feel shame and/or anxiety about illegitimate pregnancy. The women have difficulty in self expression and are "suspicious, fearful, hostile, helpless, and dependent." They are usually also socially isolated from their peers. (4 references)

Wessel, M., "A Physician Looks at Services for Unmarried Parents," Social Casework, 1968, 49(1), 11-14.

An overview is presented of the causes, the correlates and the consequences of teen-age pregnancy. Etiology is surely complex, for it includes psychological needs and social norms. The latter are found, in part, in advertising where sex is portrayed as good and as fun. Often, there is little reference to the sanctity of marriage. Child rearing patterns contribute too, as do the many specific factors subsumed under the term deprivation. Discussion covers different kinds of services to meet educational, medical, housing, financial and other psycho-social needs. Note is made of the responsibilities of law enforcement agencies. The consequences of our failure to meet these needs will be seen as these illegitimate children grow up. They are likely to repeat their parent's behavior.

Wessel, M., "The Unmarried Mother: A Social Work-Medical Responsibility," Social Work, 1963, 8(1), 66-71.

The author, a pediatrician, discusses the need for the physician and social worker to work together and he specifies some of the barriers to this. Among these barriers are expectations the physician holds for the social worker, the physician's own beliefs which may support adoption, and the physician's training and position which support his attempt to control the doctor-patient and social worker-patient relationships. One of the expectations held by the physician is that he will receive from the social worker direct advice on how to proceed. This, however, is not the style of social work consultation. Often, the social worker is seen as someone who complicates, rather than simplifies the handling of a case by allowing the patient to take a more or less active role in deciding the nature and outcome of her treatment. The physician is confused also about the referral of a case from one worker in one agency to another worker in another agency as the patient moves from prenatal care to in-hospital care, to the consideration of adoption, to postpartum care. The medical model is the opposite of this; the physician carries the case and others consult with him. Other areas discussed are whether or not to allow the mother to see her new baby and the need for continued physician-social worker contact postpartum.

Yurdin, M. O., "Recent Trends in Illegitimacy - Implications for Practice," Child Wel., 1970, 49(7), 373-375.

The author, a staff member of the National Council on Illegitimacy, reports that the rate of illegitimacy has nearly leveled off in the past 8 years, despite an increase in the absolute number of illegitimate births. Even at the current rate, however, the number of out-of-wedlock births

could reach 403,000 by 1980. This may be lowered by increasing conception control and the liberalization of abortion laws. A larger proportion of teenagers are now included among those giving birth out of wedlock. In 1968, 48% of illegitimate births were to teenagers. A disproportionate number of nonwhites are also involved. These last two trends point to the increasing need for program for continued schooling, health services, and more assistance for one-parent families, including housing, counselling and vocational training.

Zacharias, L., et al., "Sexual Maturation in Contemporary American Girls," Amer J. Obstet. Gynec., 1970, 108(5), 833-846.

This is a report of a retrospective study of American student nurses to learn their age of menarche (first menstruation) and the advent of other maturational phenomena such as pubic hair, breast budding and auxiliary hair. The study was done by mailed questionnaire, 62% of which were returned. The study group was 4,844 subjects, 17 to 24 years old. The study methodology, its strengths and weaknesses, is reviewed. Among the reported findings for this study group was that mean age of menarche was 151.8 $\pm$ 14.1 months (about 12 years). The sequence of overt maturational events which precedes menarche starts with the appearance of pubic hair at 142.5 $\pm$ 13.9 months, then breast budding at 143.0 $\pm$ 14.5 months, then appearance of auxiliary hair at 144.9 $\pm$ 15.1 months. Regular menstruation is established by 165.2 $\pm$ 24.2 months, and painful menses begin at 175.4 $\pm$ 29.8 months. There are some geographic and some seasonal differences. A predictive model for menarche is reported along with other data. The authors conclude that menarche is occurring earlier now than formerly. (19 references)

SECTION II

ABSTRACTS OF LITERATURE COVERING EXISTING SERVICES

American Medical News. "Physicians Act to Help Prevent Unwanted Teen Pregnancies." July 12, 1971, 10-12.

This article describes the movement to provide more service to pregnant adolescents, using as examples programs in Chicago, Atlanta and Cincinnati. In Chicago, the Four C's - the Crittenton Comprehensive Care Center - serves about 800 low-income adolescents ages 12-18. They receive an education, and medical, mental health and social services. Funds are provided by the county, the state and the federal governments. About 350 young women are on the waiting list. In Chicago, pregnant students are excluded from regular classrooms. Atlanta has a Maternal and Infant Care (MIC) project at the public hospital, Grady Memorial, including a postpartum clinic and a prenatal clinic. Cincinnati has a non-profit corporation, the Cincinnati Adolescent Clinic, Inc. which is funded by the Ohio Department of Health. Interviews with staff in each program fill in the outline of services presented.

Anderson, U., et al. "The Medical, Social, and Educational Implications of the Increase In Out-of-Wedlock Births." Amer. J. Public Health, 1966, 56(11), 1866-1873.

An examination of the incidence figures for out-of-wedlock births in Buffalo for 1950-1964 revealed a marked increase in the number and percentage of out-of-wedlock teenage pregnancies. Because of the attendant medical, educational and social problems, a special program was begun in 1963 for school-age mothers. Initially, the program involved only case-finding and follow-through medical care, which had beneficial results in reducing preeclampsia, prematurity, and infant mortality. In 1965, a comprehensive care program was funded, including prenatal and post-natal clinics and educational facilities.

Balsam, A. and R. Lidz, "Psychiatric Consultation to a Teenage Unwed Mothers Program," Conn. Med., 1969, 33(7), 447-452.

This report by two psychiatrists describes their participation in the Teenage Unwed Mothers Program, Yale University, New Haven Hospital, from July 1966 to June, 1967. A brief history of the program is given, as is a report on 80 adolescents who delivered. All but two of the patients were black, most were 15 to 17 years old, and over half were born in the South. Over half of the families of the teenagers were headed by women. Most of the putative fathers were within one to two years of the age of the young mothers. The patients had limited knowledge of reproductive physiology and contraception. The psychiatrists worked with the program staff in "clinician-centered" consultation, and saw eight patients in individual treatment. All eight were depressed and most had borderline or frank psychotic experience. An impoverished psychological development poorly equipped them to meet the tasks of adolescence, motherhood and adulthood. The obstetrician as a male role-model is also discussed. (28 references)

Barclay, L., "A Group Approach to Young Unwed Mothers, Social Casework, 1969, 50(7), 379-384.

A service for unwed mothers organized jointly by the Department of Welfare, (DW), a Family Service Agency, and a settlement house in Boston is described. Groups were formed by DW workers from their caseloads by selecting those who were pregnant or were mothers of a young child and living by themselvers. Twenty-one names were selected by DW. The number of these who

became participants in the group increased each session. More than seventy meetings were held over a two-year period and the number of participants who were the nucleus of the group stabilized at eleven young mothers who came regularly. Through self-selection, all were black, largely from the South, and were live-in maids. Because the babies were brought to the meetings at the settlement house, a baby-sitter was added. The women were socially isolated for several reasons, thus, the program was expanded from a focus on discussions to an active effort to help them become integrated into community social life. Individual case work came to supplement the group process. Evaluation of the two year program - which is discussed throughout - suggested that each participant showed positive change in self-image and in social competence. The program ended because almost all of the members were too busy to attend the weekly sessions. They were in continuing education programs, in training, or working. The program is seen as a success for the members and for the agencies which have effectively worker together.

Barnard, J. E., "Peer Group Instruction for Primigravid Adolescents," Nurs. Outlook, 1970, 18(8), 42-43.

A group approach was tried in an obstetrical clinic to provide health education for primigravid adolescents, ages 11 to 15. Six groups of ten were formed, each with a group leader and a student nurse recorder. It was observed that when the participants began to feel comfortable with each other, they were much more open about asking questions and discussing their anxieties over labor and delivery than adolescents usually are in a group with adults. The group leaders found anxiety levels due to ignorance to be high; the women would often return each week with the same fears and questions which had been discussed before. Slides were used to illustrate labor and delivery, as the women expressed a preference not to see films. The group leaders also felt that films of childbirth might be too realistic for these young pregnant women. The educational program also included a visit to the labor and delivery area of the hospital.

Beil, M. E., "An Interim School Program for Unwed Mothers," Child Wel., 1960, 39(I), 22-24.

A program of learning in a maternity home is described. The young mothers served ranged from age 13 to 16, and from grade eight to grade twelve. All came from homes of average or above average income. In addition to an individualized instruction program for each student to work at independently, efforts were made to increase their ability to communicate with others, and to engage in such group activities as writing a school newspaper. It was felt that the program was highly successful in enabling the students to return to school after delivery of their babies, and to transfer some credits to their regular school.

Boykin, N., " A School Centered Multidiscipline Approach to the Problems of Teenage Pregnancy," Child Wel., 1968, 47(8), 478-487.

The Continuing Education for Girls program in Detroit is described. The program began operation at three centers in 1966, funded by the federal government and administered by the Detroit public school system. 60 students were enrolled initially; 182 were served within the first year. An account is given of the various educational and social services offered, the goals of the program, and some of the problems which occurred during the first year of operation. These included finding appropriate staff, adjusting to the demanding teaching job, and expanding services to the expectant fathers and to the parents of the students. Tables are presented showing descriptive characteristics of the young mothers and the expectant fathers. In addition, several case histories are presented to show the kinds of life problems which the adolescents bring with them to the school.

Braen, B.B., "The Evolution of a Therapeutic Group Approach to School-Age Pregnant Girls," Adolescence, 1970, 5(18), 171-186.

The author describes 3 successive attempts to develop group therapy at the Y-Med School in Syracuse, N.Y. The first effort in March, 1967 involved 42 pregnant women with a median age of 18.5 years. The women were separated into 4 groups meeting once a week, led by a psychistrist, an intern, a social worker, and the director of psychological services. Few of the women were reached in these groups. The author gives several possible reasons for this, including the limited contact with the group leaders, the mixing of age groups with different attitudes and behavior, difficulties on the part of the staff in relating to the young women on their appropriate age level, and also the fact that the program was imposed on the students. In the second attempt, efforts were made to establish greater trust by meeting with all of the 59 women in a class, and rotating the psychology staff as leaders. More structure was introduced in the form of brief lectures followed by discussion. This approach helped establish more rapport and bring about more participation, but the high turnover rate reduced student participation later in the year. The third attempt involved 32 pregnant adolescents with a younger median age, 16.5 years. Initial lecture topics were repeated in the second half of the year for newcomers, and the participating staff was reduced to 2. Attendance and participation improved noticeably, and the adolescents began to take more interest in choosing topics to discuss. (7 references)

Burton, M., and I. Holter, "Health Education Classes for Unwed Mothers," Nurs. Outlook, 1966, 14(3), 35-37.

This article reports on a program for residents at a maternity home for unmarried mothers. Residents receive on-going counseling from a social worker, so the nurse focused on physical health through exercises, information and discussion. The film "Obesity" was shown and discussed at one session; at another, the film "Labor and Childbirth," was used with additional content from the Birth Atlas. Pamphlets were used also. Four sessions were held; the size of the audience varied for each class. Course evaluation by participants rated it helpful and worthwhile. Many of the materials used focused on married couples or the married female. Films for unmarried, pregnant girls are needed. (6 references)

Cochran, J. L. and R. Yeaworth, "Ward Meetings for Teen-age Mothers," Amer. J. Nurs. 1967, 67(5), 1044-1047.

The authors describe a program in an un-named hospital for teenage post-partal in-patients. The age range was 13-19 years, and the nurses chose who was able to attend. The lunch hour was used; average attendance was five women. Average post-partal stay was 4-5 days and the participants at each meeting were new. The population included both married and unmarried women. For some women, this was the first baby, for others the second, third or even fifth. Content of the meetings covered topics of interest to patients such as child rearing and medical care. Nursing staff reviewed each meeting and did a more in-depth analysis after the seventh session. This led to changes in meeting strategy and staffing patterns. The value of these meetings for the nurses is noted.

Danforth, J., et al., "Group Services for Unmarried Mothers," Children, 1971, 18(2), 59-64.

A program of group discussions for unwed mothers in Anoka County, Minn., is described. The discussions took place for two hours one evening a week for 6 weeks, with a public health nurse and

a social worker participating as leaders. The first hour was devoted to physical aspects of pregnancy, the second to social and emotional problems. The coordinator of the county mental health program was also available for one session, and for consultation with the staff using tape recordings of the group meetings. Women were recruited for the group by sending letters to the local high schools and junior college and also to medical clinics, hospitals, and social agencies. 51 women participated in 5 group programs from May, 1969 to January, 1971. They ranged in age from 15 to 30 years, with a mean of 19 years. The average number of years of school completed was 11.5, with a range of 9 to 16 years. A detailed account of the material covered in each of the 6 sessions is given. Session I dealt with human reproduction and the physical-emotional changes occurring during pregnancy, followed by discussion of the women's reactions to their pregnancy. Breathing and relaxation exercises were introduced in Session II, and the second hour dealt with the relationships of the pregnant women with their families. A nutritionist was invited to discuss diet problems in Session III, followed by a discussion of relationships with the fathers of the babies. Session IV covered labor and delivery and plans for the baby. The women toured the hospital obstetrical floor in Session V, and then discussed post-partum and infant care, and their own plans after delivery. A public health nurse from Planned Parenthood discussed family planning methods in the last week. The women were also asked to give written and oral evaluations of the program; most of these were favorable.

Day, G.A., "A Program for Teen-Age Unwed Mothers," Amer. J. Public Health, 1965, (55), 978-981.

This article describes a service program for teen-aged unmarried mothers, begun by the Visiting Nurse Association of Brooklyn, Inc., in 1963. The agency held 8-week group conferences for a total of 65 pregnant adolescents with the purpose of providing maternal and child health instruction. The conferences included discussion of sex hygiene, labor, delivery, nutrition, child care and mother-child relationships, and sewing lessons. Contacts were made with pregnant adolescents referred by hospitals and other sources to persuade them to join the groups. There were no maternal or infant deaths and only one premature birth among the women who attended. The only complications reported were antepartal symptoms of toxemia in several women and postpartal elevated temperatures in 2 women.

Finck, G., et al., "Group Counseling with Unmarried Mothers," J. Marriage and Fam., 1965, 27(2), 224-229.

This is a non-research report of group counseling with two different groups of unmarried mothers in two different settings. One program was at the Crittenton Home, St. Petersburg, Florida and began in 1960; the other began at an un-named Negro YWCA in about 1964. The second group was nine Negro women; the first was an open-ended group of unreported size and race composition. During 1963, the average age of regularly attending women was 18-19. The Crittenton therapist used a combination of didactic and free-interaction approaches. The approach in the other group is unreported, though it appears to have been focused on "reality problems." This group dissolved and was reconstituted with a black co-worker; meetings were switched to the patients' homes.

Goodman, E., "Providing Uninterrupted Education and Supportive Services for Adolescent Expectant Mothers," Exceptional Child., 1969, 35, 713-719.

Discussion focuses on the growing trend since the passage of the 1965 Elementary and

Secondary Education Act made funds available, for public schools to become the focal point for coordinating comprehensive services for pregnant school girls. Mention is made of the need for an interdisciplinary, interagency approach to the problem. With this approach, educational, health, psychological, social, counseling, vocational and legal services can be provided by the cooperative efforts of schools and community agencies. There is a brief description of comprehensive programs in Chicago, Washington, Los Angeles, and Detroit, and a listing of OEO Programs which are relevant to the funding of services for expectant mothers, the training of service personnel, and research.

Goodman, E. and E. Gerber, "She Won't Be Back," Am. Ed., 1967, 3(?), 6-8.

The Webster Girls School in Washington, D.C., is described. This was the first full-time public school for pregnant adolescents in the country when it was established in 1963 under a grant from the Children's Bureau. The program was funded on the assumptions that pregnant teenagers would want to attend school with their peers, and could be easily reached for health care and instruction and counselling with personal problems if they were brought together in one program. The students in the program have regular contact with a variety of professionals ranging from psychologists to nutritionists. Research on the program by a staff research assistance indicated that the program was highly successful in motivating students to continue in school thus increasing their life chances and ability to care for their babies.

Gordis, L., et al., "Adolescent Pregnancy: A Hospital-Based Program for Primary Prevention," Amer. J. Public Health, 1968, 58(5), 849-858.

The Adolescent Family Life Service at Sinai Hospital in Baltimore is described. The service provides birth control services and information within a total health care program for sexually active, nulliparous teenagers, with parental consent. The program begins with a full physical and gynecological examination at the Adolescent Clinic, after which the patient and the staff make a joint decision as to whether she will be provided with contraceptives. A social worker conducts biweekly discussion groups which are attended by both patients of the clinic and by some adolescent women who do not wish to obtain contraceptives. The discussions provide women with information regarding sexuality and reproductive systems, as well as with an opportunity to discuss attitudes toward sexual behavior, and family or personal problems. Psychological and psychiatric personnel are also available. 162 patients were referred to the clinic in the first year, beginning November, 1966. 62 of the women began receiving clinic services, and 43% were given contraceptives. Special mention is made of the benefits of the program for a number of severely retarded adolescents. (11 references)

Grady, E., et al., "Pregnant Adolescents: Creating Opportunities for Continuing Education in San Francisco Schools," forthcoming in Bulletin, National Association of Secondary School Principals; 1971, mimeo. p. 5.

The senior author is Program Coordinator, Special Service Centers for the San Francisco Unified School District. From this perspective, she reviews the emergence of the six programs for pregnant adolescents which are in part under her auspice. Program development began in 1965 when a committee was formed of school principals, other school personnel and representatives of interested community groups. The committee discussed the problems of pregnant adolescents - those resulting from the policy that they leave school, and those which were a consequence of

being young, pregnant and in need of services. A demonstration program of comprehensive services was begun at a local YWCA. Staff funds and space were offered by several agencies. The success of this demonstration led to the institutionalization of the innovation. The pilot program was moved to a hospital. There are now six programs, all but one of which are in a medical setting by design. The staffing pattern of each center is somewhat different. This, plus the relatively small number of students per center, allows for the individualization of the program. About 600 girls were served in 1970 by all centers. Discussion covers specifics of the different programs in the U.S. A list of probing questions about these programs completes the article. (13 references)

Grant, M., "School Centered Rehabilitation Program for Pregnant School-Age Girls." Med. Ann. D.C., 1964, 33(4), p. 186.

This one page overview of the Webster School, Washington, D.C. was written by the District's Director of Public Health. A 1962 report indicated that 904 babies were born to District mothers 16 years or younger. School policy required that pregnant students leave school. Few of those who left returned. Webster School was designed to demonstrate that such students could receive medical and health care and would return to and complete their public education. The School had a planned enrollment of 60 students and 7 full-time and one part-time staff member. The first September, 168 pregnant teenagers applied for admission. Admission priorities were set for the younger student early in pregnancy. Readers are told how to make referrals to the school.

Hartman, E.E., "Involvement of a Maternity and Infant Care Project in a Pregnant School Girl Program in Minneapolis, Minnesota," J. Sch. Health, 1970, 40(5), 224-227.

A group instruction program for pregnant teenagers was begun by the Department of Special Education of the Minneapolis public schools in 1961. Later, a group worker and then a caseworker were added to the program, and from 1965-68 a public health nurse conducted prenatal care discussion. In 1968 the program was moved to a school building, where a maternity and family planning clinic was added. Data collected for the 1968-69 year showed a total of 182 young women enrolled, including 19% black and 3% Indian. The average age was 16.3, with an age range from 12 to 19 years. 13% of the women were married. All but one received prenatal care, and the baby of the woman who did not was stillborn. Of 100 deliveries at the time of data collection, there were 2 stillborn babies, 2 neonatal deaths and 8 premature births. 76% of the mothers kept their babies, and 43% began using contraceptives.

Holmes, M.E., "A New Approach to Education Services for the Pregnant Student," J. Sch. Health, 1970, 40(4), 168-172.

The author describes the Young Mothers Program in New Haven, Connecticut, at the Polly T. McCabe Center for pregnant teenagers. The program was established in 1967 to replace homebound instruction. The number of days of homebound instruction given to pregnant adolescents was reduced from 3,391 in 1965-66 to 2,247 in 1966-67, a reduction of 33.7%. The cost per pupil at McCabe is only $338 per year, which is lower than the $726.14 cost per pupil per year in the New Haven school system. It is noted that education for handicapped students usually goes through three stages: homebound instruction, special programs, and incorporation into the regular school program with special provisions. The advantages of a special school for pregnant students are the smaller classes, which permit special attention to those behind in their work, the attraction of better teachers than homebound instruction, and social benefits of group interaction, and the special medical, social, and educational services which can be offered. (12 references)

Howard, M., "Comprehensive Service Programs for School-Age Pregnant Girls," Children, 1968, 15(5), 193-197.

A summary of existing services for pregnant teenagers is presented. It is based on a 1967 survey by the Children's Bureau, a study of the Webster School, Washington, D.C., and site visits by the author to eight cities with comprehensive programs. Most of the programs have as their goals the provision of education during pregnancy to reduce the rate of dropouts, the provision of prenatal care, and counselling with personal problems. Services are usually organized around these three basic areas although many programs provide additional placement, training, or recreational activities. Almost all of the programs were organized with the cooperation of several agencies, the median number from the 1967 survey being three. The article also reports some of the outcomes of a workshop sponsored by Yale University and the U.S. Children's Bureau. One problem which was much discussed at the workshop was the need for follow-up services if the benefits of the program are to have permanent effects.

Howard, M., "School Continues for Pregnant Teenagers," Am. Ed., 1969, 5(1), 5-7.

This article describes many of the advantages and problems of the comprehensive programs for pregnant teenagers which have been organized in recent years. A separate school has generally been thought to be the best way to provide continuing education for pregnant students. There they can receive special attention to their needs and escape harassment by other students or unsympathetic teachers. Most of the special schools provide a family living course which includes information on pregnancy and childbirth. This is necessary because many of the young pregnant women have limited knowledge in this area. Other programs provide extensive vocational training and planning, and some encourage preparation for college. Many women also receive early prenatal care through the programs. Some of the problems still faced by program staff include helping the young mother to adjust after delivery to her baby and to the community, helping to create stable family situations, and working with the putative fathers.

Iungerich, Z., "High School for Unwed Mothers," Amer. J. Nurs., 1967, 67(1), 92-93.

A brief report is given of the early Educational Medical Program (Ed-Med) of the Urban League of Pittsburgh. The program was begun using OEO funds. A special school was opened in November, 1965 for adolescents who were dropped from public school because of pregnancy. The League has administrative responsibility. It subcontracts with the Board of Public Education for teachers and formal courses, with the county health department for public health nursing services, and with Magee Women's Hospital for medical services. The staff includes a psychologist, a public health nurse and a social worker to meet the short-range objectives of continuing education, antepartal health care and information and help in psycho-social problems. Referrals come from many public and private agencies. The public health nurse is a liaison between medical services and patients, both pre and post delivery.

Knight, E., "Conferences for Pregnant, Unwed Teen-agers; Amer. J. Nurs., 1965, 65(7), 123-127.

The author describes a program for poor, pregnant, unwed teenagers, started by the Brooklyn (N.Y.) Visiting Nurse Association (VNA) and called Teenage Conference Group. VNA received referrals regularly from local hospital antenatal clinics for patient follow-up and supervision between clinic visits. For reasons of efficiency and effectiveness, a group was formed from

these referred cases. Group registration was limited to ten. Part of the program was a course which included maternal and child health content such as human reproduction, prenatal health, and nutrition. This lasted for eight sessions of one hour each. The level of content was 7-9 grade. Other content included psycho-social issues raised in group discussion during the post meeting refreshment period. Meeting time became longer as participants arrived sooner and left later. Eight groups have been formed and have been exposed to the series of conferences.

Kotaska, J.G., "Prenatal Classes for Unmarried Expectant Mothers," Canad. Nurse, 1968, 64(1), 35-38.

A joint program sponsored by the Vancouver, B.C. Children's Aid Society and the Metropolitan Health Service was established in 1966. The original purpose of the classes was to provide support, social interaction and health education for unwed mothers, many of whom come to Vancouver from the urban areas of Ontario. Classes are held one day a week for 5 weeks, and accommodate 10 girls at a time. The age range thus far has been from 16 years to 29 years. Prenatal exercises are an integral part of the program, as well as lectures and films on labor and delivery, nutrition, and health care. A social worker conducts informal discussions after each class on subjects of interest to the women. An extra class on infant care is also provided if requested. The program has been especially useful in providing social contacts for the women, many of whom are quite isolated. (3 references)

Latimer, R. and F. Startsman, "The Role of the Maternity Home Social Worker in the Prevention of Illegitimacy," Ment. Hyg., 1963, 47(3), 470-476.

This is a discussion of the role of the social worker in the private Maple Knoll Maternity Hospital and Home, Cincinnati, Ohio. The social worker has both a treatment and a prevention orientation. In the latter, two foci are suggested, sex instruction and religious instruction to develop "the young person's superego." "Sound standards of right and wrong" can be taught by the Church and emphasis could be placed on the attributes of the "good family." Since many girls do not come to the Home before the fourth month of pregnancy, only brief contact and limited treatment goals are possible. The environment of the maternity home is therapeutic and this is an aid in treatment. Environmental manipulation is, of course, of little consequence in the treatment of girls whose pregnancy is a "psychiatric symptom."

Lau, J.A., "Short-Term Group Social Service Project for Pregnant, Indigent, Unwed Teenagers," HSMHA Health Reports, 1971, 86(2), 168-172.

A social worker reports on her student work with the Richmond (Va.) Department of Public Health. The Department has a Maternal & Infant Care (MIC) Project which included an open-ended group service for a limited number of young women. Based on this experience and a literature review which suggested the value of a group approach and the scarcity of it, a question was defined: Could the services to unwed teenage mothers in the MIC project be improved through a time-limited social work-oriented group service? A demonstration service was begun as a means of providing an answer. Criteria for participation were defined, health department staff were recruited and two groups were formed - one with six and the other with nine members. Three 1 1/2 hour meetings were held. The participants seemed to absorb much important information about pregnancy, labor and child care. Most seemed to feel relatively free to express conflicts resulting from this information and advice learned from their mothers ("superstition-laden advice"). Further, the women expressed feelings of guilt and low esteem. Other discussion covers the implications of this demonstration for service and research. (4 references)

Lyons, D., "Developing a Program for Pregnant Teenagers through the Cooperation of School, Health Department and Federal Agencies," Amer. J. Public Health, 1968, 58(12), 2225-2230.

This is a description of a Los Angeles, California project -- how it was planned and begun. There was an increase in the number of pregnant adolescents who left school during the years 1962 to 1967. During those years, the school system had an increased enrollment in the junior and senior high school grades. This increase in the population at risk to pregnancy may account for the increased number of pregnant adolescents. The 1,000 young women served since 1962 had an age range from 11.6 to 18 years with a mean age of 15.8 years. There were 266 students enrolled in the program in 1966-67. Of these, 157 had normal births. There were 3 Cesarean births, 8 miscarriages, 10 premature, and 2 stillborn births. There was one neonatal death. The article includes a student's graduation address and comment by a discussant.

Mauney, F., et al., "Tenth-Grade Girls and Early Marriage: A School-Agency Project," Social Casework, 1966, 47(2), 98-103.

The authors describe a joint program between a public high school and a family agency in Atlanta, Georgia. Contact was made by the school principal and the guidance counselor when the number of tenth-graders leaving school to become married became alarming. A plan was developed for a program to be given at the school. It included a film, a panel of discussants and buzz-groups with discussion leaders. The actual program did not go according to plan and one example of this is given. The 120 participants were to be exposed to the program in two groups of 60. Teachers sent the students in the wrong order, resulting in uneven size audiences. This in turn had consequences for the panel presentation. The form and content of the discussion groups is presented and reviewed. A section on worker observations is included.

McMurray, G.L., "Community Action on Behalf of Pregnant School-Age Girls: Educational Policies and Beyond," Child Wel., 1970, 49(6), 342-346.

The background and activities of the Public Education Association Committee for the Education of Pregnant School-Age Girls in New York City are described. This committee was formed in 1966 as the organizational base for a coalition of neighborhood and city agencies which had become increasingly concerned by the lack of social and medical services and educational support for pregnant adolescents, especially those from lower-class and minority groups. The initial action of the committee was the gathering of data on the rate of births among adolescents. Of the 6000 adolescents age 17 and under giving birth in 1966-67, only about one-third were known to the Board of Education. It was discovered that most pregnant students drop out of school without informing the school staff, thus the extent of the problem is seldom realized. The P.E.A. then issued a recommendation that the Board of Education discontinue its policy of giving pregnant students a medical discharge from school, and this was accepted in 1968. The P.E.A. was subsequently instrumental in the establishment of 5 full-time schools for pregnant adolescents and in the dissemination of information about services both to potential clients and to other agencies and programs. Many collaborative activities have also been arranged, as well as a directory of social service representatives in 45 hospitals who will act as liaisons with local schools.

McMurray, G.L., "Project Teen-Aid: A Community Action Approach to Services for Pregnant Unmarried Teenagers," Amer. J. Public Health, 1968, 58(10), 1848-1853.

This is a report of Project Teen-Aid, Brooklyn, New York. Funded to serve 100 pregnant, unwed teenagers from a municipal health district, the Project offers an accredited education program, a group focused maternity education program, home visiting by Project staff, and social work

counseling in individual or group sessions. The Project has a community Advisory Committee. Since September, 1965, 193 patients have been served. An attempt is being made to actively involve other agencies in the Project program. Often these other agencies have rules which make coordination difficult. These are the problems confronting a community-based service program.

Middleman, R.R., "A Service Pattern for Helping Unmarried Pregnant Teenagers," Children, 1970, 17(3), 108-112.

The problems of communication with unmarried pregnant teenagers are discussed and some innovative means of resolving them are described. The author's basic premise is that the crises which the pregnant adolescent faces are really a "work" situation for her, and that the provision of problem-solving tasks, in the form of games, can be one means of helping her meet these crises, as well as breaking down communication barriers. Techniques used by the author in group meetings with black pregnant teenagers from a hospital outpatient clinic included breathing and relaxing exercises, mapmaking, and a board game called "Baby's Coming" which simulated the decision-making of people involved with the pregnant adolescent's situation. The importance of non-verbal communication is stressed, especially when working with persons from another cultural milieu or socio-economic class. (10 references)

Murdock, C.G., "The Unmarried Mother and the School System," Amer. J. Public Health, 1968, 58(12), 2217-2224.

This is a description of the Y-MED Program in Syracuse, New York. Using data collected from the earliest enrollees in the program (72 pregnant adolescents), it was found that 49 (68%) returned to school after delivery. Medical data for the first 85 deliveries showed a greater incidence of health problems and complications than anticipated. This finding is a result, it is suggested, of good service, particularly of good prenatal care. Good service will discover many heretofore unrecognized problems. There were no stillbirths and no infant mortality. There were eight premature infants (less than 10%). A rate of 25% was anticipated.

Osofsky, H.J., et al., "A Program for Pregnant Schoolgirls," Adolescence, 1968, 3(9), 89-108.

The Y-MED (Young Mother's Educational Development) program in Syracuse, New York is described. The social problem of pregnant school-age women is discussed, as well as resulting educational and legal problems. The program description ranges from the facilities to the philosophy of the program. Discussion focuses on the medical, educational, social, and psychological services offered. Staffing patterns for each service are noted. The goals of the program and issues relating to service are explored. The review concerns the first year of the program during which 125 young women were served.

Osofsky, H.J., et al., "Problems of the Pregnant Schoolgirl: An Attempted Solution," N.Y. J. Med., 1967, 67(17), 2332-2343.

This paper includes a review of the reasons why a pregnant adolescent is a high risk student, patient, and client, and a description of the Y-MED Program (Young Mothers Educational Development), in Syracuse, N.Y., which was designed to reduce these risks. The medical service in the Y-MED program is based on a private patient-physician model, not on a clinic model. This model is used both for obstetric and pediatric care. Professional medical staff present medical and health facts to the patients in classes which meet 3-4 times a week. Staff conferences are held twice a week, and case conferences on each patient are attended by all appropriate program and community

agency staff. From the perspective of social service, the population of pregnant adolescents can be divided into those who conceal and those who do not conceal their pregnancy, and those who keep and those who surrender their baby. It appears that human service agencies provide service to only two of the four sub-populations. Services are rarely available to the population of non-concealors. Many believe that non-concealors who want to keep their babies are predominately poor and non-white, and that they are supported in the decision by friends and family. There are no empirical data to support these beliefs. Social service data on referral sources and other factors are presented for the first 125 clients. Social worker impressions of these young women are noted. The education program in Y-MED attempts to individualize education for each student. This is necessary because of the variability among the students in intelligence and performance. They have been divided into those on the junior and the senior high school levels. Further subdivisions are made by subject area and student skill. The psychological service of Y-MED attempts to focus on the pregnant adolescent, on the staff, and on the relations among all these people in an effort to help each "communicate" effectively with each other. (23 references)

Pollack, J. H., "Where Unwed Mothers Stay in School," Today's Health, September, 1967, 24-27.

This paper is a discussion of the emerging comprehensive programs for pregnant adolescents. There are four models of service; schools for pregnant teenagers; day and night-school classes; classes in other facilities such as health, community and church centers and maternity homes; and home tutoring. These are all responses to local school policies which most often force the pregnant student to drop-out or make it difficult for her to continue education post-delivery. Included are brief reviews of The Webster School in Washington, D.C. and programs in Chicago, Oakland, California, Philadelphia and Los Angeles. These programs offer the pregnant adolescent a "second chance". However, in many places, the stigma of illegitimacy still occurs.

Sarrel, P.M. "The University Hospital and the Teenage Unwed Mother," Amer. J. Public Health, 1967, 57(8), 1308-1313.

The comprehensive program for teenage unwed mothers at the Yale Department of Obstetrics and Gynecology is discussed. The program was begun following a study of 100 teenage unwed mothers in 1959 and 1960 which revealed that the group of 100 teenagers had an additional 349 pregnancies within a five year period. All unmarried adolescents aged 17 or under who register for prenatal care at the hospital clinic are eligible for the special group program, which includes supervised medical care and weekly meetings with a social worker and an obstetrician. This lasts into the postpartum period. Contraception is provided with parental permission. Of the first 50 patients in the program, 42 accepted contraceptives, and 42 returned to school following delivery. There was one repeat pregnancy at the time of the report. (5 references)

Sarrel, P. M. , et al., "The Young Unwed Mother - The Role of the Obstetrician in a Comprehensive Care Program," Obstet. Gynec. [illegible]6, 32(6), 741-747.

This is a report of the Young Mothers Program, (YMP) New Haven, Connecticut. Begun in 1965 as a special clinic within the Department of Obstetrics and Gynecology, Yale University School of Medicine, YMP is now a multi-agency, comprehensive service program with about fifty professionals contributing time. The program is focused on the maintenance and promotion of "educational continuity, medical care and social stability." The program's range of services are presented. The medical program is reviewed. It is staffed by an obstetrician, an obstetric resident and a nurse midwife in addition to the regular clinic staff. The patient is seen every two weeks

after intake until the 28th week of gestation. After that, she is seen every week until delivery. Some data are presented for the first 120 patients. In depth evaluative research using a control group will run for five years. This is directed by a staff drawn from Yale University School of Public Health. (8 references)

Selzer, J., "These Young Mothers Don't Have To Be Drop-Outs," California's Health, 1971, June, pp. 6 & 15.

The report of the development of three programs for pregnant adolescents was written by a physician who is Director, Maternal & Child Health, San Mateo County Health Department. Bordering San Francisco, San Mateo county has a predominately middle class population of 5 1/2 million, and six high school districts. Because of the stereotype that most teenage pregnancy occurs among low socio-economic and minority group girls, discussion was begun with community people and school staff in one high school district. These discussions resulted in the agreement by agencies to lend staff. Funds came from the State Health Department and the classroom was donated by the Boys' Club. The State money was for a three year pilot program, now completed. Three programs now exist in the county. Staff are contributed by the County Health Department (social workers and public health nurses) and by the three school districts. With the success has been failure too. Among these are some of the adolescents who "didn't make it" because of the lack of day care facilities for their children. This is the staff's next project.

Smith, E., "An Oasis for Pregnant Teen-agers," R.N., 1970, 33(3), 56-61.

A program at the Special Service Center at Children's Hospital of San Francisco is described. 80 to 90 pregnant adolescents are served yearly, 45% of whom are Caucasian, 45% Negro, and 10% Oriental. Usually more than one third are married. Patients may enter the program early in their pregnancy, and remain for 6 to 8 weeks after delivery. The program includes classes for academic credit taught by teachers from the San Francisco school district, group discussions with social workers, occupational therapy, and discussions conducted by the author, an R.N., in labor, delivery, postpartum and infant care. Meetings are also held with the mothers of the adolescents to discuss their problems in adjusting to the pregnancies of their daughters, and to give them proper information on some special areas such as nutrition needs of the pregnant adolescent. It has been observed that very young mothers have strong dependency needs and frequently turn to the nurse or social worker for help in allaying their anxieties about the pregnancy. The group situation, in particular the aspect of having the patients return after they deliver, has helped to dispel many of their fears.

Strom, S., "The Schools and the Pregnant Teen-ager," Sat. R., 1967, 50, 80-81, 97-98.

The author discusses the need for educational and counselling services for pregnant teenagers, and some programs which have attempted to meet this need. Most of these programs aim at reaching Negro, Puerto Rican, and other minority group teenagers, since the middle class white unwed mother has traditionally received care at a maternity home and placed her baby for adoption. An estimated 5% of Negro teenagers and 10% of Puerto Rican teenagers receive specialized services when pregnant, compared with 70% of all pregnant unwed white teenagers. A program in East Orange, New Jersey is described in detail. Pregnant adolescents report at 3:00 for classes, and at 2:00 for counselling sessions one day a week, all in their regular school. 57 students used the program from 1963 to 1966. 3 of them graduated with their class and 13 others are still in school. Only 10% of these in the home tutoring program returned to school. One major advantage of the program has been the fact that teenagers now report pregnancy earlier, since they know they will receive help instead of punishment.

Visotsky, H.M., "A Project for Unwed Pregnant Adolescents in Chicago," Clin. Pediat., 1966, 5(5), 322-324.

This is a report of the Community Services Project for unwed pregnant adolescents in Chicago. This new program has two objectives: to allow pregnant teenagers to continue their formal education, and to expose them to appropriate medical and psycho-social services. Acceptance criteria include less than seven months of pregnancy, good physical health, and a desire to continue education. The services of the program are noted. A discussion of the mores, attitudes and behavior of the adolescent and her mother is given. It covers topics such as attitudes towards men, sexuality, sexual intercourse, masturbation, and notions about conception, pregnancy and keeping or giving-up the baby.

Wright, M. K., "Adolescent Unwed Mothers," Children, 1966, 13(5), 171-176.

This is a report of a pilot program called Community Services Project which was set up by the Mental Health Division, Chicago Board of Health in 1963. Initial funds were from NIMH. Several municipal and voluntary agencies collaborated. The program included education, medical care and mental health services. The population served in 1963 was 15 pregnant adolescents at a time, all under age 16. In 1964, 30 were served. All were Negroes from areas characterized by poor housing, crowded schools and a lack of job opportunities. The project office was set up in a public housing project. The staffing pattern is presented. The priorities for admission are noted also: girls in elementary school, in their first pregnancy not beyond the 7th month, without serious medical problems, and interested in attending school were chosen first. The education program was similar to that provided in a regular school. Board of Education teachers were assigned. The YWCA offered other courses. The municipal Board of Health's Maternity and Infant Care Project provided comprehensive medical care. The mental health services were staffed by Project personnel. These included individual and group counseling, psychological testing and psychiatric consultation. Between February 1963 and February 1966, 390 girls were referred to the Project. Of these, 108 were accepted. The other girls were accepted for medical care. The age range of those accepted was 11-16, with 14 years as the median. Further discussion tells how the pilot project was built into the on-going system of services in Chicago.

Yousem, H. L. and L. Gordis, "A Comprehensive Approach to Obstetrical Problems of Adolescence," Maryland Med. J., 1969, 18(1), 60-62.

The authors are both physicians at Sinai Hospital, Baltimore, Md., the setting of the Family Obstetrical Clinic of the hospital's Adolescent Center, one of the programs they describe. Introducing the description is a review of medical, psychological and social aspects of adolescent pregnancy. The program is staffed by residents, and a physician, a social worker and a public health nurse. The clinic meets at night. The staff focuses on the medical aspects of the case, pre and post-delivery, on continued education and on the need for pediatric care. This is a treatment or secondary prevention program. A primary prevention service was begun too. Called the Adolescent Family Life Service, this is a limited program to provide select youths with family planning information. Sexually active nulliparous youth receive contraceptives if parental consent is given. The staff of this clinic includes a pediatrician, a gynecologist, a social worker and a public health nurse, with a part-time psychologist and psychiatrist. Referrals are made from field workers and community agencies. (references upon request)

SECTION III

ABSTRACTS OF LITERATURE COVERING HEALTH RESEARCH RELATED TO PREGNANT ADOLESCENTS

Adams, H. M., "Two Studies of Unmarried Mothers in New York City," Children, 1961, 8(5), 184-188.

This is a brief review of the methodology and findings of two research projects on unmarried mothers in N.Y.C. One was done jointly by the municipal health and welfare departments and the other was sponsored by the N.Y. State Department of Social Welfare and done by the Community Council of Greater New York. The first will be called the City study, and the second the Council study. The City study methodology was a statistical analysis of all birth records and matched death records for the period of 1955-1959. Data on illegitimate births were added from municipal public welfare records. The Council methodology was interviews with 520 unmarried mothers in municipal and voluntary hospitals in the city. Findings are presented by age, ethnicity, and socio-economic status. Data include the utilization of pre-natal medical and social services; barriers to utilization are discussed. Six actions designed to improve services are listed. These are from the Council study. Data are somewhat comparable between the studies although no totals are given in the City study. In the Council study, about 83% of the 520 women received some prenatal care. Of these, about 20% began regular care in the first trimester. 32% began in the second and 21% first received care in the 7th or 8th month. About 9% began care but did not continue it regularly. The City study documents the relation between lack of prenatal care and the proportion of babies who were premature. Another relation shown is between lack of prenatal care and higher infant mortality rates. (5 references)

Aznar, R. and A. Bennett, "Pregnancy in the Adolescent Girl," Amer. J. Obstet. Gynec., 1961, 81(5), 934-940.

This is a report of pregnant adolescents 16 years of age and under who received care at Metropolitan General Hospital and University Hospitals in Cleveland. In the first hospital, all patients were "staff patients;" in the University Hospitals, about 60% of the patients were private. The paper is divided into two parts. In the first part, discussion is of those pregnancies during the years 1953 to 1959 which terminated in abortion. At Metropolitan Hospital, there were 51 abortions to the study population during the seven years. This was 21% of the total number of abortions during that time. Age distribution for those 16 and under are given. Of the 51, 16 had either a previous abortion or a previous full-term delivery. At University Hospitals, out of 1,511 total abortions, there were none to women 16 or under. The second part of the papers deals with those pregnancies which ended with the delivery of a baby weighing more than 500 grams between 1953 and 1959 at the first hospital and between 1955 and 1959 at the second hospital. At Metropolitan there were 1,080 deliveries to women 16 and under, while at University Hospitals there were 3. The age distribution is given for both hospitals, as well as race and marital status. About 80% of the young women were primiparae. At Metropolitan, about 6% of the patients came for prenatal care in the first trimester and about 19% came to the hospital during labor. Data is presented on labor and delivery, on maternal complications, and on prematurity and perinatal mortality. 16 tables are presented. In one, 18 studies are compared on 16 findings such as age of parents, percentage of toxemia and percentage of prematurity. One discussant reports on her experience with young mothers, including pregnant 9 1/2 and 11 year old patients. (20 references)

Battaglia, F., et al, "Obstetric and Pediatric Complications of Juvenile Pregnancy," Pediatrics, 1963, 32(5), 902-910.

The study group consisted of 636 young women aged 14 years or younger who registered in the Obstetrical Department of the Johns Hopkins Hospital between the years 1936-1960. Comparison groups were made up from the Johns Hopkins Hospital Clinic as a whole, from the 15-19-year-old non-white primiparous patients separately, and from data provided by the Baltimore City Health Department. The major findings were a higher incidence of toxemia, contracted pelvis, prematurity, immaturity and perinatal mortality in the study population than in the literature. Select other findings include higher age-specific birth rates for non-whites at all ages and higher perinatal mortality rates for the under-15-year-old group compared to all control groups used. The authors warn researchers not to dilute their findings on pregnancy outcomes of very young girls by using data on adolescents in their late teens. The very young primigravida - 14 years or less - is seen as an increasing problem of obstetric and pediatric importance because of the increasing size of this population and because of the pregnancy outcomes. (15 references)

Bochner, K., "Pregnancy in Juveniles," Amer. J. Obstet. Gynec., 1962, 83(2), 269-271.

A study is presented of all young mothers between the ages of 12 to 16 who gave birth at Research and Educational Hospitals in Chicago during the period of July 1, 1958 to August 31, 1960. An answer was sought to the question of whether pregnancy in juveniles differs from pregnancy in older women. The study group was 272 patients. They were compared to 658 patients between the ages of 20 and 29 who were primigravidas or secundigravidas at the same hospitals during 1959. The two groups were similar obstetrically exept for an increased incidence of toxemia, pelvic contraction and prolonged labor in the juvenile group. The major prenatal complication in the juvenile group was toxemia (11% incidence). The older group had an 8% incidence of toxemia. There was no toxemia among the young multigravidas. There was a higher incidence of pelvic contraction among the 12 and 13 year olds. This may be a consequence of their incomplete physical growth. Four percent of the juvenile group had prolonged labor of more than 30 hours while only one (0.3%) of the older group had a similar difficulty. There were few other statistically significant differences between the groups. An exception was fetal loss. The older group had more stillbirths and neonatal deaths. (6 references)

Briggs, R., et al., "Pregnancy in the Young Adolescent," Amer. J. Obstet. Gynec., 1962, 84(4), 436-441.

This is a report of a study of 204 patients 16 years old or younger who were delivered with the aid of the Florence Crittenton Home, Los Angeles between 1951 and 1960. This was 21% of all those who delivered during the nine-year period. Almost all of the 204 women in the study group were primiparous. The age range of the study group was 12-16. 165 of the 204 were 15 and 16 year olds. A control group was constructed of 105 primiparous women 21 years of age or older chosen from the same facility who delivered between 1955-1960. Of the 204 study patients, 90% were Caucasian; 96% were Caucasian in the control group. Findings are presented on antepartum course, labor, postpartum course and fetal results. Inter-group comparisons are made. The findings include lacerations of the genital tract as the most frequent complication and a twice as high rate of Caesarean section in the control group. Specific practices in the Home are noted as possible explanations for the findings. Seven other studies are summarized in a table of 10 items. (6 references)

Claman, A.D. and H. M. Bell, "Pregnancy in the Very Young Teen-Ager," Amer. J. Obstet. Gynec., 1964, 90(3), 350-354.

This is a report of 224 primiparae between the ages of 13 and 16 years who attended the Vancouver General and Grace Hospitals of the University of British Columbia, Canada. Almost all were unmarried and most were clinic patients. For this population, over half had less than 3 months prenatal care and less than 20% attended for more than 6 months. A high incidence of toxemia was found and may have resulted from the so-called adolescent "jitterbug diet" of hot dogs, potato chips, cokes, and pies. A revision is suggested for the usual blood pressure criteria for the diagnosis of toxemia for the very young. The authors used 130/80 at rest near term as indicative of mild disease. Other findings are given in eight tables: 22% (of 222 cases) were in labor 12-24 hours and 12% were in labor more than 24 hours; complications of labor occurred in about 25% of 224 cases. The need for Caesarean section was less than average. A slightly higher than normal number of babies eight pounds and over (26%) were delivered. There were eight stillbirths; three of these had congenital abnormalities. Signs of fetal distress were found in eleven cases. Several other studies are reviewed. One finding noted was that the age of menarche has declined from age 17 to age 13 in several countries over the last 100 years. Thus, biological maturity is reached sooner. It was noted also that by 1967, over 50% of the U.S. population will be under 21 years old. Both facts suggest that an increasing number of very young girls will require maternal care. (14 references)

Clark, J., et al., "The Pregnant Adolescent," Ann. N.Y. Acad. Sci., 1967, 142(3), 813-816.

The authors report two studies on the complications of pregnancy of patients ages 10-16 at Freedmen's Hospital, Washington, D.C. The first study ran from July, 1957 to June, 1959 and included 291 young mothers who gave birth to 294 babies (2 sets of twins). Sixty-five percent of these mothers began prenatal care in the last trimester; 25% received no prenatal care. Two significant findings emerged: The high incidence of toxemia and the problems of inadequate prenatal care. A second study was begun based on the findings of the first series. It was an evaluation of an increased effort to reduce the severe complications of toxemia. The subjects were 400 girls between the ages of 11 and 16 years who delivered at Freedmen's between January, 1960 and December, 1965. Data on prenatal care were related to findings on the incidence of toxemia. It was found that the range of incidence of toxemia for those who received prenatal care from three different sources was 11.0 - 15.0% compared to 23.0% for those who did not receive prenatal care. However, at Freedmen's the incidence of toxemia among young mothers was almost five times higher than among older women. Other data are given. (2 references)

Coates, J. B., III, "Obstetrics in the Very Young Adolescent," Amer. J. Obstet. Gynec., 1970, 108(1), 68-72.

A study is reported of 186 primigravidas, 14 years old and younger, who delivered infants of 500 grams or more between 1961-1966 at the State University - Kings County Medical Center, Brooklyn, N. Y. A homogeneous group of 137 unmarried, primiparous black girls with no uterine anomalies or history of surgical or medical diseases were chosen from the 186, and became the study group. A cohort of 2,968 women was developed from the same hospital using the same criteria except that these women were more than 14 years old. There were three study objectives: To learn the incidence of obstetric complications in both groups; to compare fetal outcome; and to learn the relation of maternal and fetal complications to other complications. Data were analyzed using an electronic computer. Study limitations are noted. The groups were compared on 21 ante-

natal, intrapartum and postpartum complications. Using the chi-square at the 0.05 level of significance as signifying non-random difference, three complications were noted as significant; acute toxemia, uterine dysfunction, and one day fever. Concerning the infant, there were no significant differences for prematurity or for fetal or neonatal deaths between the groups. One-day fever occurred in the study group significantly more often (18.3%) Various complications were compared within the study group. It was found that these relations existed: Anemia with fetal distress; uterine dysfunction with idiopathic bilirubinemia; and asphyxia neonatorum and respiratory distress syndrome with fetal distress. (13 references)

Dempsey, J.J., "Proposed Standard Measure of Recurrence of Out-of-Wedlock Births to Adolescents," Public Health Rep., 1969, 84(10), 839-844.

The proposed standard measure was developed to answer the question: "How can administrators express the magnitude of recurrence within their service populations in a standard and, therefore, comparable way?" The proposed measure is:

$$\frac{\text{Number of repeat out-of-wedlock deliveries}}{\text{Total number of out-of-wedlock deliveries}} \quad \text{per 24 months after the index delivery}$$

This measure is built on the basic incidence rate:

$$\frac{\text{Number of events}}{\text{Number at risk of event}} \quad \text{per unit of time}$$

There are methodological and practical problems in the proposed standard measure. These are discussed under the topics of denominator, numerator and unit of time. The proposed rate is defended in a discussion which argues that delivery is a more precise measure than a pregnancy, and delivery can refer to both the mother and infant. The unit of time is another topic reviewed. While this measure is imperfect, the need for a standardized measure is clear. Without such a referrent, cumulative, comparative findings are difficult to achieve. Also difficult to achieve is the accumulation of comparative, evaluative studies of intervention. (6 references)

Dodge, E., "Pre-Teen-Age Pregnancies," J. Amer. Med. Wom. Assoc., 1964, 19(10), 849-851.

41 pre-teen-age pregnancies are presented from the records of deliveries at the University of Arkansas Hospital, 1940-1964. Twenty-six of the 41 girls were black. There were no maternal deaths. There were 23 spontaneously terminated pregnancies. Five patients had preeclampsia. Two case records are presented in brief. One case experienced menarche at age 8, the other at age 9. (1 reference)

Donnelly, J. F., et al., "Fetal, Parental, and Environmental Factors Associated with Perinatal Mortality in Mothers under 20 Years of Age." Amer. J. Obstet. Gynec., 1960, 80(4), 663-669.

Data were obtained from standard live-birth and fetal death certificates submitted to the Section on Vital Statistics of the North Carolina State Board of Health from 1954 to 1956, and also from the North Carolina Fetal and Neonatal Death Study. In all, there were 62,234 deliveries to women under 20, including 1,074 fetal deaths and 1,400 neonatal deaths. Perinatal mortality rates have previously been shown to be higher for women under 20 than for women between 20 and 30. The data confirmed this and the fact that the rate is especially high for women under 15. Also noted was a high rate of illegitimate births to women under 15. The rate was 90% for non-whites, 38% for whites. Rates of perinatal mortality are higher for births out of wedlock, except

for mothers under 15. Prematurity and toxemia rates were found to be higher for those under 20, and were believed to be responsible for the high rate of mortality. Another variable measured was the socio-economic status of the mothers. 84% of the white mothers under 20 and 93% of the non-white mothers under 20 were in the two lowest socio-economic classes on a five-point scale. The authors conclude that socio-economic factors may be responsible for the prematurity and toxemia which cause the high perinatal mortality rates to women under 20 years of age. (8 references)

Erkan, K. A., et al., "Juvenile Pregnancy: Role of Physiologic Maturity," Maryland Med. J., 1971, 20(3), 50-52.

A study is reported of 261 primiparous 12-15-year-olds who were obstetric patients at the University of Maryland Hospital between 1957 and 1967. The data were ordered by the chronological age of the young woman and by her physiological age; i.e., her chronological age at menarche. Chronological age was then related to preeclampsia in the mother, and to infant low-birth weight. Little difference was found between age groups. When physiological age was related to preeclampsia and to low-birth weight, the findings were striking. Of those mothers who conceived 24 months or less after menarche, 31.4% were delivered of low-birth-weight infants (2,500 grams or less). This finding is statistically significant. The relation between physiological age and preeclampsia was not statistically significant. (11 references)

Gill, D.G., et al., "Pregnancy in Teenage Girls," Soc. Sci. Med., 1970, 3(4), 549-574.

This article reports the findings and conclusions of a study of all first births for the period 1958-1965 to women in Aberdeen, Scotland who were under age 20. The population of 1698 cases was divided into 3 categories: illegitimate pregnancy, prenuptial conception, postnuptial conception. 59 cases not classifiable were excluded. The women were also classified by occupation into upper, middle, and lower social class. Data are presented showing age by pregnancy category, and occupation by age and pregnancy category. Teenage pregnancy occurred at a higher rate in the lower social class. Teenagers who were in the postnuptial conception category tended to be older than those in either the prenuptial or the illegitimate category. All the records of births in Aberdeen were examined to learn the outcomes of pregnancy and complications by marital status. No significant relationships could be found between marital status and pregnancy outcome, or marital status and rates of various complications. Those differences which did occur seem to be the result of interacting factors such as lower birth weights to women of shorter stature, and shorter stature among women of lower social classes, which have higher illegitimacy rates. Illegitimate pregnancies were found to differ from the other two categories by later ante-natal care or absence of it, and a higher rate of perinatal mortality (42.5 per 1000 births). (38 references)

Hassan, H. M. and F. Falls, "The Young Primipara: A Clinical Study," Amer. J. Obstet. Gynec., 1964, 88(2), 256-269.

The authors report on a study of pregnant adolescents 12-15 years old who were seen at Booth Memorial Hospital, Oak Park, Illinois, a Salvation Army service for unwed mothers. The time covered was 1 September, 1955 to 31 August, 1962. The population was 159 young women who delivered. A control was constructed of 78 who were 22 years old and from the same facility. Both groups were compared to all women who delivered during the same seven-year period (1,913 women). Comparisons between the study group at each age, the study group as a total group, the control group, and the total population of all those who delivered are given in a thirty-one-item

table which includes data on maternal health status, labor, delivery and outcome. Another table presents the findings of thirteen other studies on essentially the same items. The authors outline fourteen findings at the end of the article; these are only a part of the findings noted and discussed in the text. The fourteen conclusions listed include the findings that young primapara have the following increased "hazards" of pregnancy: toxemia, prematurity, prolonged labor and fetopelvic disproportion. These hazards are reflected in higher rates of Caesarean section and perinatal loss. Highest risk to these hazards for both mother and infant is at 14 years. Racial differences are noted. The authors conclude that the young primapara should be considered an "obstetric entity" because of the increased risks to both mother and infant. (31 references)

Hulka, J. and J. Schaaf, "Obstetrics in Adolescents: A Controlled Study of Deliveries by Mothers 15 Years of Age and Under," Obstet. Gynec., 1964, 23(5), 678-685.

A study was done at the University of Pittsburgh using hospital records from 1957-1962 and a control group of 19,20 and 21 year olds. The study group was 139 patients between 12 and 15 years old. The control group was an adjusted, stratified random sample of 119 patients. Methodology for constructing the control group is given. Data presented include antepartum care, development of the fetus, diseases of pregnancy, labor and delivery, X-ray pelvimetry and postpartum morbidity and mortality. Findings reported as statistically significant between the groups are: Adolescents had fewer antepartum visits; they delivered more premature and immature infants; their offspring had higher perinatal mortality, and they had less postpartum anemia. The authors conclude that on the whole the adolescent mothers present no greater difficulties in pregnancy, labor, delivery or postpartum care than do older primigravidas. However, the babies tend to be delivered earlier, weigh less and have a poorer chance of survival. (10 references)

Hutton, M., "A Study of Factors Affecting Teen-age Married Multiparae," Canad. J. Public Health, 1968, 59(1), 10-14.

The findings of a study of perinatal mortality in the province of Alberta, Canada pinpointed the high rates of teenage mothers. This led to a study focused on this group. This study was done in Edmonton, Alberta between January and August, 1965. Using birth certificates, 130 teenage subjects were chosen and a control group was formed of women 20-29 years old. Parity was the variable controlled. Interviews were done and the findings are presented as "stress" and "strain" in the childhood and present environments of the women. Stress was defined as the environmental force acting upon the individual. It included social status of the father, parents' health, and patient's perception of parents in the childhood environment. In the present environment, stress included husband's social status, medical insurance status, mobility and perception of primary group relationships. Strain was defined as the reaction to the external environment and included height, health and education in the early environment and weight and a standarized test score in the present environment. A data analysis was done of intergroup differences. Findings include higher prematurity and perinatal mortality rates for the teenage group, and higher anxiety for the teenage group. 82% of the teenagers were pregnant at the time of their marriage compared to 35% of the control wives. Other data are presented. (11 references)

Israel, S. L., "Relation of the Mother's Age to Obstetric Performance," Obstet. Gynec., 1964, 24(3), 411-417.

This study was based on an unselected population of 22,201 gravidas. 25% were in their teens (2.2% being 15 or younger) and 20% were over 30. Most were of low socio-economic class and the majority were semi-indigent. There were an equal number of whites and Negroes, and 7% were Puerto Rican. 13% were single, 8% divorced or widowed. Observations showed that, excepting the youngest mothers, fetal death rate increased in a linear way with the age of the mother. Teenagers had the lowest rate, except for those under 16. The neonatal death rate was high among the youngest, and the oldest nulliparous. The best survival rate was for the nulliparous aged 18-29. The perinatal mortality rate was higher for Negroes than whites, but the heaviest losses were among women over 30. The relation of age to length of labor was almost linear, except for nulliparous teenagers. The percentage of newborns with congenital malformation was lowest for teenagers, increasing with the age of the mother. The children of the youngest and oldest mothers had the highest proportion of neurologic abnormalities. The study concluded that the best age for childbearing is 18-25. (7 references)

Israel, S. L. and T. Woutersz, "Teen-age Obstetrics: A Cooperative Study," Amer. J. Obstet. Gynec., 1963, 85(5), 659-668.

This article reports a study of ten hospitals which belonged to the Obstetrical Statistical Cooperative in 1958. The population studied was 3,995 teen-age pregnancies drawn from the Cooperative. This was the total number in 1958 in the ten hospitals of the Cooperative and was almost 10% of all deliveries in those hospitals. Women over 20 years who delivered in the same hospitals were controls. Comparisons were made between the total deliveries and the teenage sub-set of the total. The sub-set of teenagers was divided into those 14 years and under (100 cases) and those 15-19 (3,895 cases). The percentage of whites in the sub-set was about 48% compared to about 66% in the total population delivered. In the adolescent sub-set, about 71% were nulliparas and 29% were multiparas. More non-whites were multiparas. Major findings were a higher incidence in the occurrence of preeclampsia, anemia, one-day fever, puerperal morbidity and labor in excess of 20 hours in the teenage group. Caesarean section was performed less frequently among teenagers. Essentially no differences between groups were found in fetal, neonatal and perinatal mortality and in the incidence of abnormal presentation, laceration, transfusion, hemorrhage, intercurrent disease (i.e disease arising or progressing during the existence of another disease) and dystocia (i.e. difficult labor). The authors conclude that teenage obstetrics presents no greater challenge than obstetrics in general. Discussants reviewed the paper. One presents detailed data from the University of Maryland Hospital. These data are compared to data presented in the study reported in the article. (16 references)

McGanity, W., et al., "Pregnancy in the Adolescent. I. Preliminary Summary of Health Status," Amer. J. Obstet. Gynec., 1969, 103(6), 773-778.

A study is reported of 861 pregnant adolescents 13-19 years old in Galveston, Texas done by staff at the University of Texas Medical Branch Hospitals. The sample was adolescents, the majority of whom were Negro and primigravida, who entered prenatal care at the University. The data collected were nutritional status and the patient's social, educational and environmental background. Questionnaires and interviews were used by the research team, which was composed of a physician, a public health nurse, a social worker, a nutritionist and a biochemist. The published report presents data on 550 "high-risk" patients. A methodological innovation in the study was the use of a comprehensive food frequency format which had 160 food items and which was computer

scored. The article focuses largely on the nutritional findings and includes data on dietary intake and nutritional-biochemical assessment. The majority of patients had an adequate and satisfactory pattern of food intake and nutrient content, but had less than acceptable hematologic values, vitamins A and C and urinary riboflavin. (12 references)

Mussio, T., "Primigravidas Under Age 14," Amer. J. Obstet. Gynec., 1962, 84(4), 442-444.

A study was conducted of 50 teenagers under the age of 14 in four St. Louis Hospitals between 1951 and 1960. Four were 12 years old and 46 were 13 years old. A ten-year search of all obstetric cases in the four hospitals turned up the 50 cases. The total number of cases found was 86,948, thus, the incidence of very young mothers was 1.735. Of the 50 young mothers 89% were Negro and 89% were unmarried. Data for the fifty are given on labor, delivery, and maternal and infant complications. This includes the finding (in 32 of 50 cases) that menarche had a mean of 11.53 years, a range of 9-13 years. The modal was 12 years. Other findings include no increase in fetopelvic disproportion because of pelvic immaturity, and a higher incidence of prolonged labor. (2 references)

Osofsky, H., et al., "A Program for Pregnant Schoolgirls: Some Early Results," Amer. J. Obstet. Gynec., 1968, 100(7), 1020-1027.

This is a discussion of the medical section of Y-MED, Young Mother's Educational Development Program in Syracuse, New York. The Program provides comprehensive medical, educational, social and psychological services to pregnant schoolgirls. During its first year, 177 young women entered the program. Of these, 76 have delivered 78 infants (2 sets of twins). A Program goal was to establish early and intensive prenatal care. This was achieved in part. 46% of those who delivered were seen by the twentieth week of pregnancy; all but 14% were seen by the 28th week. The mean number of prenatal visits were 11. Serious complications were almost nonexistent and mild complications occurred less frequently than expected. The most common mild complications were excessive weight gain, anemia and incipient or mild toxemia. A diet kitchen was opened and the young women prepared lunch under the supervision of a nutritionist. This nutrition program seems to have been related to the less frequent excessive weight gains which were found after the lunch program was begun. Delivery problems were less frequent than expected, with prematurity and Caesarean section the most common significant problems. The prematurity incidence was 11.5%; the Caesarean section rate was 9.2%. The average birth-weight was 6 lbs. 6 oz. There were no perinatal deaths. A description of Y-MED, and social service data on the 177 patients are given. (18 references)

Rauh, Joseph, L., et al., "The Management of Adolescent Pregnancy and Prevention of Repeat Pregnancies," HSMHA Health Reports, 1971, 86(1), 66-73.

This is a report from the Adolescent Clinic, Cincinnati General Hospital, and the Department of Pediatrics, University of Cincinnati Medical Center. Begun in 1960, the Clinic is open five mornings per week and staffed by eight part-time physicians and two medical caseworkers. Funds come from the Division of Maternal and Child Health, Ohio Department of Health as well as from private citizens and local foundations. Data are presented on several populations. Presented first are data on the 89 parous adolescents seen in the prenatal care and birth control program from mid-1965 to mid-1968. 91% of the teenagers were black. 80% of all the young women were primaparas. At the time of first contact the median school grade completed was 9th grade. A cohort of 83 young mothers was constructed randomly from non-Clinic adolescents who delivered at the same hospital. Comparative data on both groups are given for age, education, race, marital status, and length of

time in study. Second, data are presented on outcomes for both groups. The Clinic group had less prenatal and delivery complications and became pregnant again less often and after a longer period of time. The authors report on the birth control methods used. The Majzlin Spring appears to be the method of choice. There was a high rate of expulsion of Lippes Loops. The article includes a discussion of the program philosophy. (9 references)

Reeder, S. and L. Reeder, "Some Correlates of Prenatal Care Among Low Income Wed and Unwed Women," Amer. J. Obstet. Gynec., 1964, 90(8), 1304-1314.

This report used data from a study of wed and unwed mothers who attended six prenatal clinics of the Los Angeles City Health Department. The larger study sought data on the personal, family and sociological characteristics of the unwed women and on their prenatal health habits. This paper reports on a stratified, random sample of 179 wed and 80 unwed women who attended the clinics. Forty-nine of the 259 (18.9%) in the sample were between 15-18 years old. Data were collected using an interview schedule. The data sought included age, education, ethnicity, occupation, household composition, income, number of pregnancies in and out of wedlock and the number of live births. For analysis, the study group was divided into five sub-groups: (1) wed with no illegitimate pregnancy; (2) wed with one illegitimate pregnancy; (3) wed with 2 or more illegitimate pregnancies; (4) unwed with 1 illegitimate pregnancy; (5) unwed with 2 or more illegitimate pregnancies. For the 15-18 year olds, there were 22 cases in group (1), 9 cases in group (2), no cases in group (3), 15 cases in group (4) and 3 cases in group (5) (N=49). Four prenatal care indices were developed to provide a prenatal care profile. These were: clinic status, regularity of meeting clinic appointments, an index of the relation between when pregnancy was first suspected and when the women first sought prenatal care, and a total index of prenatal care. The last index is composed of scores on the other three indices. The findings are not reported by age. (17 references)

Sarrel, P. and C. Davis, "The Young Unwed Primipara: A Study of 100 Cases with 5 Year Follow-Up," Amer. J. Obstet. Gynec., 1966, 95(5), 722-725.

A study was done at the Yale-New Haven Medical Center to help design a pilot project for the young, unwed primipara. The original study group was 123 unwed patients aged 17 or less who delivered their first child between 1/1/59 and 12/30/60. All had delivered at the Center and had been followed in the residents' obstetrical clinic. Twenty-three cases were lost in the follow-up. No reasons were given for this. In the five-year period beginning with the delivery of the first illegitimate child, these 100 patients delivered 340 children. There were 9 recorded abortions. Only five of the 100 women did not become pregnant again; three of these had other medical problems. Of the 100, 36 were married, but at the end of five years, only 9 are living with their husbands. Three of the 100 were prescribed contraception; two of the three became pregnant with the contraceptive device in utero. These findings gain another perspective when it is realized that the average patient in the study has over 20 years of potential reproductivity remaining. Reference is made to a Kansas City study on the cost of illegitimacy. The authors suggest that 100 unmarried, pregnant adolescents would bear 900 children in a twenty-year period at a cost to society of more than $10 million. (13 references)

Sarrel, P. and L. Klerman, "The Young Unwed Mother," Amer. J. Obstet. Gynec., 1969, 105 (4), 575-578.

Findings are presented from a study of the first 119 pregnant, unmarried women under 18 to attend the Young Mothers Program at the Yale-New Haven Medical Center. The patients had a

mean age of 16.4 and 104 of them were nulliparous. All but 3 were Negro, and 50.4% were born in Southern states. 47.1% of the patients registered at the clinic before the 21st week of pregnancy, and the group averaged a total of 9.2 clinic visits. Findings indicated that the rate of antepartum complications was low, and only minor conditions occurred. There were 6 cases of toxemia, 1 prenatal death, and 6 premature births, including one set of twins. The mean labor time was 8.7 hours. It was shorter for the multiparous (5.8 hours). The conclusion drawn was that intensive prenatal care can reduce problems in high risk-pregnancies. (7 references)

Semmens, J. P., "Fourteen Thousand Teen-Age Pregnancies," Amer. J. Nurs., 1966, 66(2), 308-311.

This is a report of a study of about 14,000 pregnant teenagers who delivered in over 20 U. S. Navy hospitals. The author found a relationship between weight gain and toxemia, especially when the gain was over 25 pounds. Data are given by pounds gained for adolescents under 15 years and for those 15 and over. For those 15 and over with a weight gain of 1-25 lbs., 6% had toxemia; with a gain of 26-35 lbs., 11.2% had toxemia; with a gain of 36-40 lbs., 15.6% had toxemia; and with a gain over 40 lbs., 22.8% had toxemia. About 90% of the patients delivered at or near term. With "precipitate labor" defined as labor lasting less than 3 hours and "prolonged labor" defined as more than 21 hours, it was found that 12% of those under 15 years old experienced precipitate labor while 13.5% of those 15-19 years experienced it. Both groups were within the upper limits of normal. The multiparas as a sub-population had an incidence of 30.7% of precipitate labor. Primiparas accounted for 86.7% of the patients experiencing prolonged labor.

Semmens, J. P., "Implications of Teen-Age Pregnancy," Obstet. Gynec., 1965, 26(1), 77-85.

The author reports on a study of 12,137 patients seen by U.S. Navy physicians. The incidence of abortion in the sample was low (5.5%) and there were no maternal deaths. There were complications due to weight gain. The incidence of toxemia was found to rise proportionate to each increment of weight. For the whole sample, the incidence of preeclampsia was 5.9%. The incidence of prematurity was 9.5%. Other data on delivery are presented. Some suggestions are made for patient management. (9 references)

Semmens, J.and J. McGlamory, "Teen-Age Pregnancies," Obstet. Gynec., 1960, 16(1), 31-43.

This study focused on healthy teen-agers in stable marriages who were seen at the U.S. Naval Hospital, Charleston, S.C.: 1044 primigravidas and 456 multigravidas in the age range 11-19 years were studied. The patients were divided into three groups: Group I was primigravidas delivered before their 18th birthday; Group 2 was primigravidas delivered after their 18th birthday but before their 20th birthday; and Group 3 included all subsequent pregnancies of the teen-agers which occurred prior to their 20th birthday. Group 3 was the 456 multigravidas. Data presented included complications of pregnancy, weight gain, toxemia of pregnancy, prematurity, infant weight, method of delivery and perinatal mortality. Among the findings were: No babies placed for adoption, lower natural abortion rates and few complications of pregnancy in the 13-17 age group and in the multiparous group. Weight gain was the most frequent complication. There was an incidence 1 1/2 - 3 times normal of infants under 2000 gm. and an increased incidence of prematurity. The incidence of precipitate labor among the multiparous was 1 in 4 deliveries. The authors suggest methods of delivery in cases without complications. (11 references)

Stearn, R. H., "The Adolescent Primigravida," Lancet, 1963, 2, 1083 -1085.

A physician reports on 30 patients whom he delivered in 1961-1962. The age range was 13-15 years. Four impressions emerged: That there was a high incidence of antenatal hypertension; that the girls were physically mature and had a quick labor and an easy delivery; and that they had good "mental tolerance" during the pregnancy. There were no Caesarean deliveries. The author presents data on toxemia and on labor and compares his findings to those in the literature. He found that the babies were all healthy and of good size with no increase in prematurity because of the mother's age. He concluded that pregnancy in the adolescent primigravida is relatively free from complication. However, hypertension and preeclampsia must be looked for. The pregnant adolescent should be seen weekly after the 32nd week. (14 references)

Stine, O. & E. Kelley, "Evaluation of A School For Young Mothers," Pediatrics, 1970, 46(4), 581-586.

An evaluation study of the Edgar Allen Poe School, Baltimore, Maryland, is reported. In this study, the dependent variables were infant morbidity and mortality. These outcomes were compared for two groups. One group was the mothers of 224 infants who were enrolled in the School between September, 1967 and December, 1968. The School required that each enrollee register with a social agency and receive prenatal care. Other services are provided. The study group was compared to a group of mothers matched to the School enrollees on race, age, sex and birth order of infant among other factors. The mothers were found by first locating births during the study period and then including the mother in the control group. The study intended to "evaluate the effect of a program -- for school aged mothers upon the health of these mothers by studying their infants." Among the reported findings are fewer infants 2501 gm. or less at birth born to mothers enrolled at the School, and fewer infants of school enrollees with gestation periods of less than 37 weeks. Infant mortality was also "much lower" for those mothers enrolled in the School. Prenatal care, studied as date of first visit, was found not to be predictive of infant mortality. (6 references)

Von Der Ahe, C., "Problems in the Management of Illegitimate Pregnancy," Amer. J. Obstet. Gynec., 1963, 86(5), 607-615.

This is a report of 1,797 young women who were illegitimately pregnant and who delivered at St. Anne's Maternity Hospital, Los Angeles between January 1956 and December 1959. Of these patients, 687 were between the ages of 12 and 19 years at time of conception. The paper reviews the four sources of patient referral, the religious, social class and family size backgrounds of the adolescents, the patient age at conception, and the age and occupation of the alleged father. For the teenagers in the 11-15 age group, the average age of the father was 21. The patients were seen first about the fifth month. Included in the physical examination were Papanicolaou smears. This test was funded by special grants. A weekly "dystocia clinic" was held. In delivery, barbiturates were used sparingly and low-dose spinal anesthesia (saddle block) was the procedure of choice. Few complications arose in delivery. Of those that occurred, toxemia, premature labor and prolonged labor each had an incidence of 2%. Post-partum complications included third-degree extension of median episiotomies. Caesarean rate was very low (0.8%). Any labor over 24 hours was considered prolonged. About 75% of the babies were referred for adoption. Perinatal mortality rate was 2.5%. There was an 8% incidence of premature infants. Five physicians discuss this paper and other programs. A discussion of the Seattle, Washington Children's Home includes some data. (5 references)

Zackler, J. et al., "The Young Adolescent As An Obstetric Risk", Amer. J. Obstet. Gynec., 1969, 103(3), 305-312.

The authors report on a Chicago study of pregnant adolescents 15 years or younger who delivered between January 1, 1965 and June 30, 1967. There were two study groups: One group was 2,403 patients who received prenatal care at the Chicago Board of Health Clinics. The other study group was 4,504 patients of the same age group who did not receive prenatal care by the Health Board Clinics. Some in this group received care from private or public sources and some received no care. Some in the Board Clinic group made only one visit. Delivery and pregnancy outcomes were studied for both groups. The Board Clinic was an early federally funded Maternity and Infant Care Project. Select findings included these: The Board Clinic group of 2,403 patients delivered 2,358 live births. Thirty-eight of these babies died under seven days (hebdomadal death rate of 15.6 per 1,000 live births) and 45 infants died under 28 days (neonatal mortality rate of 19.0). The non-Board Clinic group of 4,504 delivered 4,400 live births. The hebdomadal death rate was 30.0 per 1,000 and the neonatal mortality rate was 36.8. Both rates were over 90 percent higher in the non-Board Clinic. (6 references)

SECTION IV

ABSTRACTS OF LITERATURE COVERING PSYCHOLOGICAL, PSYCHIATRIC AND SOCIAL WORK RESEARCH RELATED TO THE PREGNANT ADOLESCENT

Aug, R. G. and T.P. Bright, "A Study of Wed and Unwed Motherhood in Adolescents and Young Adults," J. Amer. Acad. Child Psychiat., 1970, 9(4), 577-594.

This is a report of a study of 24 unmarried and 22 married women who were interviewed by a psychiatrist 1-2 days post-delivery at the University of Kentucky Medical Center. The interview covered the following subjects: the mother, her baby, her mate, her family or origin and her peers. Based on these data, four sub-population groups were defined. These cut across the boundaries of marriage and race. In the report, race and sub-cultural factors are discussed as these are found in the local regions, e.g. Bluegrass region. All findings are related to socio-cultural patterns. An illustrative case and sub-population description are given for each of the four groups. Group I was composed of married women with "positive" family relationships; Group II, unmarried women from a sub-culture which was tolerant of illegitimate pregnancy; Group III, wed and unwed young women who showed "pronounced disturbance of interpersonal relationships;" Group IV, married Negro women who showed marked disturbance of interpersonal relationships. Two young women did not fit clearly into any of the four groups. The discussion of findings challenges three generalizations held in comprehensive programs for pregnant adolescents: that such a pregnancy initiates a downward life spiral which must be checked; that the population of unwed mothers is psycho-socially homogeneous; and that the unwed mother not the wed mother has the majority of problems. Further discussion separates the perspective of the unwed mother in terms of pathology and as normal psychosocial development. Question is raised about using the "absence of repetition of pregnancy" criterion in program evaluation. This criterion is value-based and thus often inappropriate, and, in fact, service may be little related to why a particular adolescent or population of young women does not repeat pregnancy. (14 references)

Barglow, P., et al., "Some Psychiatric Aspects of Illegitimate Pregnancy During Early Adolescence," Amer. J. Orthopsychiat., 1967, 37(2), 266-267.

This is a digest of a paper read at the annual meeting of the American Orthopsychiatric Association. The research compared 25 young women pregnant for the first time with a matched group of 25 women pregnant a second time and with an average of twenty months between the delivery of the first child and the second pregnancy. The median age of the population was 14 years and they were lower socio-economic class. All the subjects were patients in a demonstration project offering comprehensive services for unwed, pregnant teenagers in Chicago. Significant differences between the study group and the matched group were found on "ego assets," high school ability and performance, the number of broken homes and the "passive-dependent-depressive trait." On all of these, the adolescents who were pregnant for the first time showed more favorably. The variables which were related to and were unrelated to the differences between the groups are noted. Among the latter were age at onset of menses and the frequency of sexual intercourse prior to conception. The authors see pregnancy as one way to attempt to resolve the "mother-daughter bond." No specific psychopathological diagnosis can be made to cover this population. No value was found in past psychodynamic etiological formulations when applied to the young women studied. Data for this study were collected by interview and by standardized psychological test.

Claman, A. D., "Reaction of Unmarried Girls to Pregnancy," Canad. Med. Assoc. J., 1969, 101, 328-334.

This article reports on observations of 316 clinic patients, 85% of whom were between 16 and 25 years of age, and most of whom were either high school graduates or still in the appropriate school grade for their age. Most were upper-lower class when rated by father's occupation; some were middle class. In general, the women tended to have had long relationships with the putative father. The author concluded that the younger the woman was when she began "going steady," the younger she was at the time of her initial sex experience. The major concern of the women when they learned of their pregnancy was believed to be fear of rejection by their parents. Because of the large number of repeaters, the author recommends that contraceptive information and advice be given to the women after their first delivery. (21 references)

Clifford, E., "Expressed Attitudes in Pregnancy of Unwed Women and Married Primigravida and Multigravida," Child. Develop., 1962, 33(4), 945-951.

This is a report of a study using the Schaefer and Manheimer Pregnancy Research Questionnaire (PRQ). This instrument is used to evaluate the emotional status of a pregnant woman and to relate this to the course of her pregnancy as well as to other factors. In this study, the PRQ was given to three groups: Group I was 50 women living in one of two residences for unwed mothers. Their age range was 14-27 with a mean of 19.5 years. Pregnancy status was 7.3 months, mean. Education was 11.7 years, mean. Group II was 50 primigravidas with a mean age of 19.7, a pregnancy status mean of 6.8, and an education mean of 11.1 years. Most were low-income. Group III also had 50 women, most of whom were low-income. They were multigravidas with a mean age of 25.3, a pregnancy mean of 6.3 and an education mean of 10.7 years. All women in Group II and Group III were married. All participants in the study were volunteers. Data analysis is presented as inter-group differences. It was found that Group I (unmarrieds) expressed less desire for pregnancy, less maternal feeling and less nausea during pregnancy than did the other two groups. Compared to Group II (primigravidas), the unmarried expressed more depression and withdrawal. Compared to Group III (multigravidas), the unmarried rated themselves as healthier and expressed fewer psychosomatic symptoms during pregnancy. Other findings noted. (4 references)

Drew, L. R., "The Psychiatrist and the Unwed Mother," Int. J. Soc. Psychiat., 1965, 11(2), 123-130.

This report was drawn from the author's experience at the Salvation Army Booth Memorial Home, Sharon, Mass., where he began a psychiatric consultation service. He began his work by developing a relationship with the staff and by learning from them what the problems were. By the end of six months, several administrative changes were made which resulted in a reallocation of staff time to provide more services to fewer clients. He also became a supervisor and consultant to the caseworkers. A research study was begun. Psychiatric assessment, and, later, the California Psychological Inventory were two instruments of data collection used with 100 consecutive admissions. Casework histories were also used for the study. Data are presented on the psychiatric significance of the pregnancy as rated by the psychiatrist and the social worker, and on the patient's psychiatric status during pregnancy. There were clear differences between the ratings given by the two professionals. The program is discussed throughout the article and several roles are suggested for the psychiatrist working with this population. These include clinical management, "clinical influence" (consultation) and research. (25 references)

Eshleman, J. R., "Mental Health and Marital integration in Young Marriages," J. Marriage & Fam., 1965, 27(2), 255-262.

This research used a sample of 82 married couples who resided in Franklin County, Ohio, and were married between August and December, 1961. Among the other criteria for inclusion into the sample were age of husband (19 or less), length of marriage at interview time (6 months), and race of husband and wife (Caucasian). Sampling bias is reviewed. The characteristics of the sample are reported by age, education, place of birth and premarital pregnancy status. About 43% of the 82 wives were pregnant prior to marriage; about 25% were pregnant at time of interview. Thus, about 68% of the couples were having a child within a year after marriage. Employment and income data are reported. A Meadian orientation forms the basis of the three hypotheses tested using the LaForge and Suczek Interpersonal Check List (ICL). Each hypothesis was supported by the data, that is, a positive relation was found between marital health and marital integration. Given the sample, findings cannot be extrapolated without care; no attribution of causality can be made on the relation of mental health to marital integration.

Gabrielson, Ira, W., et al., "Suicide Attempts in a Population Pregnant as Teen-agers," Amer. J. Public Health, 1970, 60(12), 2289-2301.

This is a report of a review of case records at the Yale-New Haven Hospital of teenagers who threatened or attempted self-destructive acts. The study was undertaken after a medical record review of 105 pregnant adolescents, 17 years old or younger, showed that 14 of these patients had threatened or attempted suicide. The study was done in 1968 with 105 adolescents who had delivered at the hospital in 1959-1960, and who met the criteria of 17 years old or less, New Haven resident, and patient with a medical record which included follow-up data for at least two years. Because of the method used in constructing this sample of 105, the number of suicide threats and attempts was probably underestimated. Fourteen of the 105 teenagers (13.3%) threatened or attempted suicide. Data on this "attempt group" are given. The most common method of attempt was the ingestion of pills. Often found in conjunction with the attempt was "emotional illness," marital discord, and associated physical illness. No clear, strong relationships were found for the following variables: Age, race, religion, marital status, residence, birthplace, source of care, pregnancy outcome, parity, number of subsequent pregnancies, complications of pregnancy or venereal disease. The findings were related to other studies of attempted and completed suicides. This distinction is important because, among other reasons, there appear to be major differences between those who attempt and those who complete suicide. A rate was constructed:

$$\frac{\text{Number of mothers who attempted X 100}}{\text{Number of patient-years for the whole sample.}}$$

The denominator was constructed by taking the whole sample, 105 teenagers, figuring the number of months they were followed (7,084 patient-months) and then transforming months into patient-years (590.3 patient-years). The finding was 2.03% or 2,030 attempts per 100,000 per year. This rate was ten times higher than those of other studies. Two alternative explanations are presented. One views the stresses of pregnancy as etiologic; the other views the attempt and the pregnancy both as responses to yet other stresses. Other discussion includes the meaning of the attempt, increased risk to attempt, and prevention of attempts. (21 references)

Giel, R. and C. Kidd, "Some Psychiatric Observations on Pregnancy in the Unmarried Student," Brit. J. Psychiat., 1965, 111, 591-594.

This article reports on a study of the pre-pregnancy mental health of pregnant unmarried university students. The study sought to determine the contribution of neurotic factors to pregnancy. Records were obtained from the Student Health Service of the University of Edinburgh, Scotland on all registered unmarried women who had their pregnancy confirmed between 1958-1963. 57 records were found and matched with a control group of 57 nonpregnant women registered with the Health Service who were selected at random. Research workers used the criteria described by Hessel (1960) to identify the likelihood of a psychiatric disability, and also counted the number of consultations the patients received at the Health Service. It was found that 45.6% of the pregnant unmarried women had consulted their doctor with a conspicuous psychiatric disability during their first year at the university, compared with 15.8% of the nonpregnant women. This difference was significant at p .001. The pregnant women had higher rates of consultation prior to pregnancy than did the nonpregnant women. Frequency of consultation was assumed to be an indicator of neurosis. (9 references)

Gottschalk, L. et al., "Psychosocial Factors Associated with Pregnancy in Adolescent Girls: A Preliminary Report," J. Nerv. Ment. Dis., 1964, 138(6), 524-534.

This is a report of 131 adolescents, 16 years and younger in Cincinnati, Ohio. Two populations were studied: One was 26 pregnant whites and 19 matched nonpregnant whites while the other was 50 pregnant blacks and 36 matched nonpregnant blacks as controls. The pregnant women were unsystematically selected from an obstetric and gynecologic out-patient service and from another agency. The controls were matched on several factors and they were drawn from local public schools attended by 80% of the pregnant women. Data were collected by several kinds of interviews including brief contact interviews and psychotherapeutic interviews. The findings are reported in written and tabular form. "Composite Pictures" of the white and black young women are drawn. For the composite black young woman, it was found that she reached menarche earlier than the nonpregnant; she was less likely to have sisters but if she had a sister, the sister was more likely to have been pregnant. There were no differences between black adolescents pregnant and nonpregnant on the number of "broken homes," parental separation or divorce. The composite white pregnant adolescent, like the pregnant black, had an earlier onset of menstruation than did the nonpregnant white. Other attributes of the composite pictures are given for both the black and white young women and other data are discussed. Two "working hypotheses evolved with respect to the factors responsible for the adolescent pregnancies in this sample of girls: (1) a set of social and psychological events and experiences promoting greater receptiveness towards sexual intercourse (exist)...; (2) more advanced sexual maturity as adjudged from earlier menarche, and hence more likeliness to conceive a child following sexual intercourse." (6 references)

Griswald, Barbara B., et al., "Some Personality and Intellectual Correlates of Repeated Out-of-Wedlock Childbirth Among Welfare Recipients," J. Clin. Psychol., 1966, 22(3), 348-353.

40 Negro and 40 white women were randomly selected from a stratified public welfare population of a single welfare office in the San Francisco Bay Area. Each of the two groups included 20 unipara and 20 multipara. Psychological tests were administered to test the hypothesis that multipara of both races would show more serious personality disturbance and less adequate intelligence than the unipara. The hypothesis was not supported for the white group, but the scores of the Negro

unipara and multipara were significantly different for 20% of the scales, with the unipara scoring closer to the average in the predicted direction. The authors caution that the results may have been affected by the fact that more white women place illegitimate children for adoption, and thus were not represented in the sample. (6 references)

Hauser, S. and C. Hobart, "Premarital Pregnancy and Anxiety," J. Soc. Psychol., 1964, 63, 255-263.

Focused interviews and the Taylor Anxiety Scale were administered to 25 primaparae in a West Coast home for unwed mothers. The sample was largely white and middle class, and ranged in age from 14 to 30. Data from the interview relevant to the women's relationships with their families, hometown peer groups, the father of the baby, and peer groups in the shelter home were cross-tabulated with the results of the anxiety scale. The findings indicated that close primary group relationships were associated with low anxiety scores. Those women who felt close to groups both at home and at the shelter scored lowest on anxiety; those who felt close only to home primary-groups scored next higher, and those close only to their shelter peer group scored next. Those who felt isolated from all primary groups scored highest on anxiety. (15 references)

Heiman, M. and E. Levitt, "The Role of Separation and Depression in Out-of-Wedlock Pregnancy," Amer. J. Orthopsychiat., 1960, 30(1), 166-173.

This is a report of observations of a population seen at a N.Y.C. social agency. The women were predominantly white, Jewish, of every social class, and between the ages of 12 and 40 plus. The data were collected in clinical interviews, in diagnostic interviews and with standardized psychological tests when indicated. A central observation is that "some women react to the experience of separation or death with depression; the pregnancy which follows is dynamically linked to the depression." Citing others who have commented on the relation among parental loss, depression and out-of-wedlock pregnancy, the authors compare and contrast their position to those held by others. Several cases are presented and discussed from an analytic perspective. (16 references)

Kaufman, P. K. and A. L. Deutsch, "Group Therapy for Pregnant Unwed Adolescents in the Prenatal Clinic of a General Hospital," Int. J. Group Psychother., 1967, 17(3), 309-320.

Twenty unwed adolescent primaparae were screened for group therapy by a social worker at the Prenatal Clinic of the Jewish Hospital of Brooklyn. Eight were selected at random for treatment by 18 months of group therapy. The remaining 12 were used as a control group. The adolescents were all aged 12 to 16, all Negro, and all attending school when pregnancy occurred. Seven of them came from families which were receiving public welfare. The therapist reported initial difficulty in reaching the 8 clients, but eventually became a "mother-figure" for them. Discussion in group included anxiety about pregnancy, interpersonal problems, and the physical aspects of delivery. The therapist also met with the mothers of the girls to discuss the use of contraceptives for their daughters. The mothers agreed, and 5 of the young women received contraceptive services after delivery from the hospital's Family Planning Clinic. At the end of the 18-month treatment there were no second pregnancies in the treatment group, but 9 of the 12 young women in the control group were pregnant again.

Khlentzos, M. and M. Pagliaro, "Observations from Psychotherapy with Unwed Mothers," Amer. J. Orthopsychiat., 1965, 35(4), 779-786.

This is a report of observations from eight years of individual and conjoint family therapy with over 100 unwed mothers and their accessories. The study sample were those patients who continued in treatment after delivery. A clinical discussion is given of women, men and their interaction emotionally and sexually. The authors suggest that a minimum of 18 months of treatment for this population is necessary. Less time than this precludes developing the relationship necessary for effective treatment. Standardized instruments were used. The population research methodology and study findings are presented throughout the article.

Kogan, William S., et al., "Changes in the Self-Concept of Unwed Mothers," J. Psychol., 1965, 59(1), 3-10.

A study of changes in the self-concept of unwed mothers from the third trimester of pregnancy to shortly after parturition used 25 unwed residents of a Florence Crittenton Home in Seattle. The average age of the residents was 16.5; all of the women placed their babies for adoption. 64 items of the Interpersonal Check List were administered on two occasions, each time with six different instructional sets. The findings indicated that upon admission, the women saw a disparity between their actual interpersonal behavior and what they and their parents desired, as well as between their behavior and the behavior of most teenagers. After parturition, however, their own self image was closer to what they considered desirable and normal. The authors attribute this change to adjustment over the course of pregnancy. (5 references)

Kogan, W. S. and E. E. Boe, "Personality Changes in Unwed Mothers Following Parturition," J. Clin. Psychol., 1968, 24(1), 3-11.

This is a report of an attempt to ascertain the specific dimensions on which self-concept changes occur over time. The Revised Interpersonal Check List (RICL) was administered to 32 unwed mothers at the Florence Crittenton Home in Seattle, Washington. The mean age of the subjects was 16.5 years at the time of admission. All of the subjects had already decided to place their babies for adoption. The items were administered twice to the subjects shortly after admission and within a week following parturition. Six instructional sets were used each time. Full time employees of the home were also asked to describe the subjects using the RICL. The group of judges included 4 social workers, 3 nurses, 4 housemothers and one teacher. Item responses were factor analyzed (by a method devised by Hoist) to assess changes in repeated measures over time. Factor scores were computed and are reported if over .40. Also reported are the "F ratios" from the analysis of variance used to evaluate the effects of "occasions" and instructional sets. The 5 significant occasions by set interactions showed that the subjects saw themselves as more self-reliant, warmer, and less indulgent after delivery. The ratings by judges were inconclusive. (12 references)

Kravitz, H., et al., "Unwed Mothers-Practical and Theoretical Considerations," Canad. Psychiat. Ass. J., 1966, 11(6), 456-464.

This is a descriptive report of the patients seen in a hospital clinic for unwed mothers in Montreal. General demographic data are given for the first year's population of 83 cases, and a brief, general description of the psycho-social attributes and behavior of some of the cases is presented. A case is presented and discussed by the authors who are psychiatrists. It is their opinion that unmarried pregnancy per se is "indicative of underlying emotional problems" in the female. Further, they do not feel it is possible to suggest any specific psychiatric dynamic structure that adequately fits with this complex, overdetermined condition of premarital pregnancy. Therapy appears to be effective in helping each women decide whether to place her baby for adoption. Other observations are made. (6 references)

LaBarre, M., "Life Situational and Psychodynamic Factors in the Pregnancy Experiences of Married Adolescents," Amer. J. Orthopsychiat., 1967, 37(2), 265.

This is a digest of a paper read at the Annual Meeting of the American Orthopsychiatric Association. It is a report of a study of married, white primaparae, ages 14-19, who were seen at the prenatal clinics, Duke University Hospital. The data were collected by a psychiatric social worker through interviews at the patients' homes during and after pregnancy. Although the number of cases is unreported here, all were school dropouts and blue-collar by birth and marriage. Three life crises for the pregnant teenagers are noted: Adolescence, early marriage and pregnancy. Each of these is a stress and a focus of adjustment. The author suggests that adjustment to one of the three may aid adjustment of the others. These young women feel lonely and socially isolated. Their authority conflicts with their mothers are transferred to other authority figures such as teachers, doctors or nurses. The strengths of adolescence - optimism, courage, adaptive ability - can be used to deal with pregnancy as a crisis.

Liben, F., "Minority Group Clinic Patients Pregnant Out of Wedlock," Amer. J. Public Health, 1969, 59(10), 1868-1881.

The author, a psychiatrist, first reviews the problem of out-of-wedlock pregnancy, then presents data from a study, and last presents the elements of a model which could be used for research and for service. (Adapted from Bernard, 1944.) The difference between the number of out-of-wedlock pregnancies and the rate of these is noted. The number of births has risen but the rate of births is relatively stable. This change may be a consequence of earlier puberty, not of a change in sexual behavior. A brief historical review of explanations of the etiology of pre-marital pregnancy shows that these have changed with the decades: "Before 1930, mental deficiency; 1930, environmental and ecological factors; 1940, cultural way of life; 1950, psychological and psychiatric disturbances; 1960, sick society, alienation, permissiveness." Beyond these stereotypic explanations of the etiology of illegitimate pregnancy are others which build on factors such as social class and race. Some workers use psychological and psychiatric explanations for middle-class, white women and social factors and "moral laxity" explanations for lower-class, black women. Even the research methods used to study the "problem" vary by the social class and race of the women under study. Current studies have been criticized for sampling bias and for the assumptions underlying the research hypotheses. In an effort to meet these criticisms, a study was done on "minority group patients, pregnant out of wedlock, and drawn from a patient population attending a prenatal clinic." It is unclear how many patients were evaluated. Observations are reported for the women by age. A short illustrative case is given for each age group, and within each age group, the sample is divided into those who are married, unmarried and recidivists (repeaters or multiparous). The attitudes of the women towards contraception and abortion, sexuality, marriage and adoption are descriptively reported. The most common psychiatric diagnosis was "reactive depression, mild to moderate." Other diagnoses for the study group are given. Thoughts on the prevention of out-of-wedlock pregnancy are offered. These include sex education in the schools and the emerging comprehensive service programs, among others. (41 references; two page list of possible etiological factors)

Malmquist, C. P. et al., "Mothers with Multiple Illegitimacies," Psychiat. Quart., 1967, 47, 339-354.

Interviews were conducted independently by a psychiatrist, a psychologist and a social worker with 26 women who were pregnant with or delivered their third illegitimate child during

the time of the study. The women were referred from a County Welfare Department and were all on public assistance. This report discusses the psycho-dynamic trends and personality configurations of the women, on the basis of the interview data and the results of five psychological tests. The results indicated little intellectual impairment or inefficiency. 58% of the mothers had a "48" or "84" profile from the MMPI. The most frequently occurring personality configuration was felt to consist of distortions in object relations with a narcissistic character structure. Humiliation and ego states of hatred were also frequently observed, and were believed to serve as a defense against "emptiness." (13 references)

McDonald, R. L. and K. Parham, "Relation of Emotional Changes During Pregnancy to Obstetric Complications in Unmarried Primigravidas," Amer. J. Obstet. Gynec., 1964, 90(2), 195-201.

This is a report of a study of 160 white, single primigravidas who were patients in a Florence Crittenton Home. The age-range was 14-32 years with a mean of 19.4 years. Educational status ranged from 9th grade to a baccalaureate degree, with a mean of 11.2 years. The MMPI was used to learn about the personality characteristics of each subject. The Kent E-G-Y scale D (adult) was used as an estimate of intellectual functioning. The Taylor Manifest Anxiety Scale (MAS) was used also. References are given to support the choice of these instruments. Clinical data were used to assign cases to either a "normal" or "abnormal" group based on pregnancy, delivery and postpartum medical status. The rules for case assignment are given. The research procedure was the administration of the MMPI and the MAS at the beginning of the third trimester and 1-10 days postpartum. The results were analyzed using the "t" test to determine group differences between the "normals" and the "abnormals." The major findings are presented in three tables and include the result that pregnancy is a time of emotional upset for the woman, that there is relation between manifest anxiety and total labor time, and that there is a positive relationship between manifest anxiety and birth weight. It was also found that borth "normals" and "abnormals" showed greater personality stability postpartum. A brief literature review is presented and suggestions for research are made. (29 references)

Naiman, J., "A Comparative Study of Unmarried Mothers," Canad. Psychiat. Ass. J., 1966, 11(6), 465-469.

This study sought to test the hypotheses that guilt was of etiological significance in unmarried pregnancy. Two groups were used. The study group was unmarried, white, Protestant, Canadian-born women between 18-25 years old. All self-applied to a Montreal social service agency. Every fifth case at the agency between December, 1963 and March, 1965 who met the criteria was seen. A control group was constructed of married mothers who met the same ethnic and racial criteria and were patients at the obstetric clinic of a local hospital. There were 14 women in the study group and 18 in the control group. Data on age, education and other factors are given for both groups. The findings did not support the hypothesis that guilt was etiological in the pregnancy. It was found that sexual impulsivity was etiological. (16 references)

Nielsen, K. and R. Motto, "Some Observations on Family Constellations and Personality Patterns of Young Unmarried Mothers," Amer. J. Orthopsychiat., 1963, 33(4), 740-743.

A condensed version of a paper read at the 1961 Annual Meeting, American Orthopsychiatric Association. This is a report of a study of the residents of Florence Crittenton House, Los Angeles. The research is unclear on the sample, the methodology and the time. A case is presented without comment.

Osofsky, H., and J. D., "Adolescents as Mothers: Results of a Program for Low-Income Pregnant Teenagers with Some Emphasis upon Infants' Development," Amer. J. Orthopsychiat., 1970, 40(5), 825-834.

This is a report of the YMED Program, Syracuse, N. Y., a comprehensive program for pregnant adolescents. The authors review the data which were used to substantiate the conclusion that pregnant adolescents are at high risk to medical and social disorder, and that their babies are also at high risk to prematurity and fetal and neonatal mortality. Premature babies as a group have an increased incidence of mental subnormality and neurological deficit. The findings of increased incidence for prematurity and small-for-dates infants varies by social factors. Many of these social factors are present in the environment of the low-income pregnant adolescent. The YMED program was designed to lower these risks. Research was done to learn if these risks were in fact reduced. Several studies were done of the mother, the infant, and the mother-infant interaction. The latter utilized a videotape machine to record the interaction and several instruments to measure the interaction. Limited medical data for 325 girls are given. Data on the infants show an incidence of 12.5% for premature and small-for-date infants which is low compared to a reported and quoted study done in Baltimore. Only 3 perinatal mortalities were reported. Other data are given. The infants studied -- here the number of infants studied dropped as the length of study time increased -- were low weight and shorter than the norms at one month of age; they were average at six months, and again below average at 9 months and one year. The findings on mother-child interaction show "a relatively high amount of warmth and physical interaction" and relatively little verbal interaction. The infants score relatively high on measures of activity and much less high on measures of affectivity and responsivity. (39 references)

Otto, U., "Suicidal Attempts Made by Pregnant Women Under 21 Years," Acta Paedopsychiat., 1965, 32, 276-288.

From survey material on 1727 Swedish children under 21 years who were treated from 1955-1959 for suicidal attempts, an analysis was made of those women included in the study who were pregnant at the time of the attempt. The study covered 1376 women who had attempted suicide. 78 or 5.7% of these were pregnant. 43.6% of the pregnant women indicated pregnancy as the "provoking moment" of their suicide attempt. Fewer of the pregnant women attended school or lived with their parents than the entire female sample. The pregnant women tended to use the same suicide methods as the entire group of women. A large proportion of infantile and hysterical personalities were found among the pregnant women, but this was also found in the entire sample of those who attempted suicide. In 5.1% of the cases involving pregnant females, the suicidal attempt was a result of their inability to obtain an abortion.

Randall, Louis, "The Unwed Teenage Mother," Maryland Med. J., 1968, 17(2), 145-146.

By teenage pregnancy, the physician author refers to all gestation ending before the 20th birthday. In Baltimore, about 45% of all gestations are to teenagers. Using Baltimore data for 1964, it is shown that most illegitimate births are to mothers between 12 and 17 years old. While the number of illegitimate births nationally has risen, the ratio of illegitimate babies per every 1,000 unmarried women of child-bearing age has been relatively steady. Based on his experience with an unreported number of cases, the author thinks that 75% of the adolescent patients became pregnant being normal adolescents and doing normal adolescent things. About 25% of the pregnancies are seen as rebellion against authority or parental punishment, among other things. It is noted that social definitions of youth are no longer congruent to physiological definitions. We become upset when youth behave as physiological adults when we see them in a social childhood. A brief overview of the Sinai Hospital program for pregnant adolescents is given.

Rosen, E. J., et al., "A Psychiatric, Social and Psychological Study of Illegitimate Pregnancy in Girls Under the Age of Sixteen," Psychiat. Neurol., (Basel.), 1961, 142(1), 44-60.

This is a report of a Canadian study of 13 girls seen between February and May, 1959 at the Child and Adolescent Outpatient Department, Toronto Psychiatric Hospital by a psychiatrist, a social worker and a psychologist. Data on illegitimate births for the Province of Ontario are given as background for this clinical report. The psychiatric report briefly covers school status, living situation, sex knowledge, age at onset of menarche, number of sexual incidents, and the age of the putative father. The social work report covers interviews held with parents of 9 of the 13 girls. Topics reported include parent-child relations, description of parents' age and occupation, and parents' attitudes towards the child's pregnancy. The social work summary comments on the absence of a strong father in all cases and on the mother-child relationship. Interviews were held one time for one hour. The psychologist gave the appropriate Wechsler (child, adult), the Rorschach, the Thematic Apperception Test (TAT) and the Draw-a-Person test. The psychology summary suggests no clear-cut relationship between personality variables and early, illegitimate pregnancy. The overall summary notes that it is not possible to characterize this group of pregnant adolescents as a type, although clusters of personality types may be found. Five are suggested: precocious girl; sociopathic; unsuspecting, unprepared, passive girl; rejected, isolated, lonely girl; girl with mother as peer.

Schonholz, D. H., et al., "An Adolescent Guidance Program: Study in Education for Marital Health," Obstet. Gynec., 1969, 34(4), 610-614.

The authors describe a hospital service and a study of its patients at Mt. Sinai School of Medicine, New York City. The authors list the reasons why a separate Ob-Gyn clinic for adolescents was established. Then they report on a study of the 135 patients seen at the clinic. The study was designed to test two hypotheses: that a comprehensive, hospital-based program would improve the patient's obstetrical status and enable her "to cope more effectively with her return to the social environment"; second, that data from this clinic would prove useful in curriculum development in sex education and other subjects. Of the 135 adolescents, 50% were Puerto Rican, 40% were black and 10% were white. Most of them were 15 or 16 years old and most received partial or total public assistance economic support. In 85 cases, the young person lived with only her mother. 23 adolescents were in public shelters. 95% of the sample left school during pregnancy. They had almost no formal sex education. 133 of the adolescents never used contraception. Other descriptive data on the sample are provided. Obstetric, psychological testing and psychiatric data are presented. Among these: 85% "could be characterized as possessing chronic feelings of depression"; "The vast majority of pregnant teenagers are emotionally disturbed." The hypothesis underlying the comprehensive hospital-based program was supported. (12 references)

Wagner, E. E. and J. Slemboski, "Psychological Reactions of Pregnant Unwed Women as Measured by the Rorschach," J. Clin. Psychol., 1968, 24(4), 467-469.

There are no Rorschach studies of the psychological impact of pregnancy on unmarried females; this preliminary study is the first. Three groups were tested. Each consisted of 15 whites living in Summit County, Ohio. The first group were pregnant unmarrieds living in the Florence Crittenton Home in Akron, Ohio. Each was at least 5 months pregnant and in the age range 18-23. The second group was pregnant and married and chosen from a Red Cross child-care course; their age range was 19-26 years. The third group was married, non-pregnant nurses employed at Akron City Hospital with an age range of 21-28 years. An IQ test was given and no significant differences between means of three groups was found. The Rorschach was given and scored according to

Piotrowski. The major finding was the differences between groups found in three "light shading variables Fc, cF, and the weighted sum of Fc+cF+c." These denote doubt and uncertainty, feelings of loneliness and helplessness. The pregnant unmarried had a higher score. This finding is likely the consequence of, not the cause of, the condition of being pregnant and unmarried.

SECTION V

ABSTRACTS OF LITERATURE COVERING RESEARCH ON PREGNANT ADOLESCENTS AND THE PUBLIC SCHOOLS

Anderson, W.J. & S.M. Latts, "High School Marriages & School Policies in Minnesota," J. Marriage and Fam., 1965, 27(2), 266-270.

This study began in 1962 with a questionnaire to junior and senior high school principals in the state requesting the number of students who had married during the period 1959-62. 292 (57%) of these questionnaires were retumed. Analysis found that high school marriages and pregnancy at time of marriage were more frequent in communities of less than 40,000 population. In communities of 2-10,000, at least 85% of the married students were pregnant at the time of marriage. High school marriage appeared to be related strongly to premarital pregnancy and may have been a major reason for marriage. These and other data were compared to similar studies in Iowa and California. The Minnesota state figure of 69% of high school students pregnant at the time of their marriage is higher than the figures for other states. Explanations are offered for these findings and suggestions for family life educators are made.

Atkyns, G.C., "Trends in Retention of Married and Pregnant Students in American Public Schools," Sociol. of Ed., 1968, 41(1), 57-65.

This article reports on a study of school district policy regarding retention of married or pregnant students. Questionnaires were sent to the superintendents of 153 school districts in the U.S. with a population of 100,000 or more. The retum rate was 83%, or 127 questionnaires. Questionnaires were also sent to all school districts in Connecticut. Data were obtained for 1940 and for each 5-year period after that until 1966. 53% to 57% of the respondents had a written policy concerning students age 17 or less who were married, pregnant, or had children. Most districts were not consistent in having policy for all 3 circumstances, leading the author to conclude that policy was formed as problems arose. A historical trend in large cities toward removing restrictions on attendance since 1940 was observed, the sharpest change having occurred after 1955. However, there was also a small recent decrease in the number of districts permitting married and/or pregnant students to attend regular classes. Presumably the other districts require these students to attend adult evening classes. Geographically, the Southeastern states tended to have the most restrictive school-district policies for all the categories, and the Southwest tended to be most restrictive with respect to unmarried pregnant students. In 1966, 44% of the total sample of districts denied attendance to unmarried pregnant students, and 38% denied it to married pregnant students. For the Southwest, these figures were 75% and 59%; for the Southeast, 68% and 59%.

Harding, F.K., "The College Unmarried Population Explosion," J. Sch. Health, 1965, 35(10), 450-457.

A report of patients seen by the author, a physician at Ohio State University Health Service, is presented. During 1964, 90 patients who thought that they were pregnant were seen. 40 of these were between 17 and 20 years old. Of the 90, 50 brought their problem to the campus and 39 "acquired it" during the college year. Several women were multiparous. Most of the patients were freshmen, and the rest were in descending order from sophomore to graduate student. Most were students in the school of education, and most were from middle-class families. All but one were white. 15 women had a confidential psychiatric record at the Health Service, either because of self-referral or because of their responses to the Cornell Index test. Data are given on the comparison between this group and the larger student body. (11 references)

Havighurst, R.J., "Early Marriage and theSchools," Sch. R., 1961, 69, 36-47.

A study was done of all sixth-grade boys and girls in the public schools of a Midwestern city in 1951-1952. The study followed their social and educational histories until November 1959, when most were 19 years old. There were 247 young men and 240 young women in the study population. The earliest to marry were the women, 54 being married at age 17 or younger. A high percentage of early marriages occurred among subjects from the lower-lower socio-economic class. 43% of the lower-lower-class females were married by age 18. When the study concluded, there were 149 marriages, involving 106 of the young women and 43 of the young men. The success of the marriages was rated on a 5-point scale. School dropouts had lower marriage ratings than high-school graduates, with a chi-square significant at .01. Personal-social adjustment was measured on social leadership, aggressive maladjustment and withdrawn maladjustment. A high maladjustment score was shown to be related to early marriage. The author recommends that young women who are likely to marry early be prepared for marriage in high school with more home economics courses, including part-time domestic work. (1 reference)

Hoeft, D.L., "A Study of the Unwed Mother in the Public Schools," J. Ed. Res., 1968, 61(5), 226-229.

37 unwed mothers in a culturally deprived urban Midwest high school were selected for the purpose of comparing their attendance, grades, and emotional behavior with a control group of 37 randomly selected female students in the same school. The three measures were obtained by asking each student's division teacher to fill out forms providing this information during the eighteenth week of the semester. The measure of emotional behavior was a combined score. Teachers rated each pupil on leadership, service, courtesy, and cooperation. Results showed an average absence score of 6.50 for the control group and 16.00 for the study group, with each day of absence counting one point and each day of tardiness 1/2 point. A "t" score comparison of the upper 25% and lower 25% of the 2 groups was significant at the .05 level. With respect to grades, the control group averaged 1.57 on a 4-point scale, and the study group averaged 0.57. The difference was significant at the .01 level. The emotional-behavior scores ranged from a low of 0 to a high of 12. The average control-group score was 8.16, and the average study-group score was 7.16, with a difference significant at the .05 level. At the end of the semester, 19 students in the study group and 6 in the control group had left school. Special mention was made of 11 students from the study group who were placed in a class with other troubled students under an extremely sympathetic teacher who was aware of their special problems. Although these students scored lower on all three of the measures taken than the entire study group, they had a much lower dropout rate, 27% compared to 56%. The author concludes that unwed mothers are in need of, and can benefit from, special attention and consideration for their problems.

Landis, J.T., "High School Student Marriages, School Policy, and Family Life Education in California," J. Marriage and Fam., 1965, 27(2), 271-276.

A mailed questionnaire was sent to public senior high school principals in California requesting data on the incidence of student marriages, school policy on this, and the number and content of courses in family-life education. This was a ten-year follow-up of a 1954 study. Comparison between periods is attempted with caution because of secular changes in the state during the decade, the anonymous listing of schools, which prevents longitudinal comparison,

and the different questionnaires used in the two studies. The 1964 sample was 321 (54.4%) schools; there were more complete returns from rural and urban areas up to 50,000 population. Findings included 90% of the schools reporting one or more marriages in 1954 and in 1964. Premarital pregnancy increased in the decade in 33% of the schools. It decreased in 9%, and there were no changes in 58% for the 1964 study. These data were correlated to the size of the city. Data on premarital pregnancies from 166 of the 321 schools are presented. These data were incomplete and thus difficult to analyze and interpret. School policies during the decade became more "rationally based," while courses in family-life education have lost ground because of disbanded courses. Several reasons for this are offered.

Matthews, H.A., "The Courts and Married Students," School Life, 1961, 44(3),5-9.

This review of action taken by appellate courts on cases involving married students' right to attend public schools includes a list of opinions of State Attorneys General on the subject. Fewer than 12 cases have been heard involving married students, 2 in 1929 and the others after World War II. An analysis of the decisions showed a trend for courts to support the right of boards of education to make regulations restricting the extra-curricular activities of married students and to temporarily suspend them immediately after marriage and during pregnancy. The courts also tended to rule that compulsory-attendance laws were not applicable to young married people. (17 references)

Noland, R. and C. Sherry, "Educator Attitudes and Practices Regarding the Pregnant High School Girl," Ment. Hyg., 1967, 51(1), 49-54.

A report of a questionnaire study of 150 educators in Ohio schools is presented. One hundred thirty-four educators (89%) returned usable data. Of these, 24 were high school principals, 26 were counselors and deans of students (school level unreported), 53 were high school teachers, and 31 were teachers in elementary schools. Seventy percent were in public education; 60% were females. Four tables are presented: Table 1 shows the extent of agreement on value statements relating the school to the issue of the pregnant student; Table 2 shows what these educators saw as the causes of "premarital pregnancy"; Table 3 gives educator opinion on what the school should do to help these students get treatment; Table 4 presents educator opinion regarding treatment of the father when he is in the same school as the pregnant coed. It was found that positive attitudes toward the unwed mother and services for her are probably more acceptable now than in the past. It was found also that the young woman still carried the weight of moral and psychological responsibility for the pregnancy. Weakening of "parental guidance" and "family disunity" were seen as etiologic to the adolescent's behavior. A clear "double standard" of morality was found, for few felt that the putative father should be punished. Other findings are noted. (1 reference)

Willmarth, J.G. and L.C. Olsen, "Teen-age Marriages and Unwed Pregnant Girls," Clear. H., 1964, 39(3), 171-175.

Questionnaires were sent to the principals of all the high schools in Washington state regarding their attitudes and policies toward pregnant and/or married students. The return rate was 91%, or 253. 226 of the respondents felt that it was their duty to discourage teenage marriages; and of these 104 said that married students should be disciplined. 138 said that married students should not be disciplined; but in actual practice, disciplinary actions outnumbered non-disciplinary by 256 to 32. These actions varied from expulsion to restriction of extra-curricular activities. Of the 225 schools which had a definite policy regarding married students, 135 said it was established by the school board. The pattern with respect to pregnant adolescents

was similar. 209 schools had a definite policy, and 132 of these were determined by the school boards. 110 principals said that the school should discipline pregnant students, while 127 said it should not. In practice, however, 169 schools, a majority, did discipline the pregnant student. Most of the schools, 227, made no effort to locate the father of the baby, although 79 said they would use the same disciplinary measures against the father as against the teenage mother, if he were identified. 188 schools offered one or more courses on marriage or family life. The authors suggest that high schools should be less concerned with discipline and more concerned with offering constructive counseling and instruction for married and pregnant students. (11 references)

Wurtz, F. and G. Fugen, "Not Much Help for Pregnant Schoolgirls," Am. Sch. Bd. J., 1970, 157(10), 22-24.

This article describes a study that investigated the way in which school districts handled pregnant teenagers. 48 state departments of education returned a questionnaire. 33 states reimbursed local school districts for the education of pregnant school-age students. 12 states provided consultation services but no money to plan programs, and 3 states had no programs for pregnant students. The states that allocated money through special education categories varied from the inclusion of pregnant adolescents under programs for the physically handicapped, to programs for the maladjusted and emotionally disturbed. The states that provided funds had a total of 17,000 school districts, but only 5,450 of these were using the funds and providing schooling for pregnant students. This figure included those that offered only homebound instruction.